



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
BOX 25046 MS 801A
Denver Federal Center
Denver, Colorado 80225

In Reply Refer To:
U.S. Geological Survey
Attention: Mr. Nour Suleiman
Box 25046, MS 406
Denver Federal Center
Denver, Colorado 80225

June 11, 2019

Mr. Austin R. Evers
American Oversight
1030 15th Street NW, Suite B255
Washington, D.C. 20005

Transmitted by electronic mail: foia@americanoversight.org

Re: U.S. Geological Survey (USGS) Freedom of Information Act (FOIA) Tracking #
USGS-2018-00222 – Response

Dear Mr. Evers:

This is our response to your Freedom of Information Act (FOIA) request dated September 7, 2018, in which you requested copies of the following information from January 20, 2017, to the date of the search:

1. All records reflecting communications (including emails, email attachments, text messages, messages on messaging platforms (such as Slack, GChat, Lync, Skype, WhatsApp, Facebook messages, and Twitter Direct Messages), telephone call logs, calendar invitations/entries, meeting notices, meeting agendas, informational material, draft legislation, talking points, any handwritten or electronic notes taken during any oral communications, summaries of any oral communications, or other materials) between political appointees* in (a) the Office of the Secretary, (b) the Office of the Deputy Secretary, (c) the Office of the Assistant Secretary for Water and Science, or (d) the Office of the Director of the U.S. Geological Survey and:
 - a) Any employee or representative of the Uranium Producers of America ([@theupa.org\); or](mailto:@theupa.org)
 - b) Any employee or representative of Energy Fuels Resources Inc. or its affiliates ([@energyfuels.com\); or](mailto:@energyfuels.com)
 - c) Any employee or representative of Invariant LLC ([@invariantgr.com\); or](mailto:@invariantgr.com)

- d) Any employee or representative of Comeau, Maldegen, Templeman & Indall ([@cmtesantafe.com](mailto:cmtesantafe.com)); or
 - e) Any employee or representative of Uranium One group or its affiliates ([@u1h.com](mailto:u1h.com), [@ultrading.com](mailto:ultrading.com), [@uranium1.com](mailto:uranium1.com), [@u1holding.com](mailto:u1holding.com)); or
 - f) Any employee or representative of Cameco Corp. ([@cameco.com](mailto:cameco.com)); or
 - g) Any employee or representative of Dentons US ([@dentons.com](mailto:dentons.com)); or
 - h) Any employee or representative of Rio Tinto Group or its affiliates ([@riotinto.com](mailto:riotinto.com)); or
 - i) Any employee or representative of Ernst & Young ([@ey.com](mailto:ey.com)); or
 - j) Any employee or representative of the Smith-Free Group; or
 - k) Any employee or representative of BHP Billiton or its affiliates ([@bhp.com](mailto:bhp.com)).
2. All records reflecting communications (including emails, email attachments, text messages, messages on messaging platforms (such as Slack, GChat, Lync, Skype, WhatsApp, Facebook messages, and Twitter Direct Messages), telephone call logs, calendar invitations/entries, meeting notices, meeting agendas, informational material, draft legislation, talking points, any handwritten or electronic notes taken during any oral communications, summaries of any oral communications, or other materials) between personnel at the U.S. Geological Survey's National Minerals Information Center who were involved in drafting DOI's list of critical minerals and:
- a) Any employee or representative of the Uranium Producers of America ([@theupa.org](mailto:theupa.org)); or
 - b) Any employee or representative of Energy Fuels Resources Inc. or its affiliates ([@energyfuels.com](mailto:energyfuels.com)); or
 - c) Any employee or representative of Invariant LLC ([@invariantgr.com](mailto:invariantgr.com)); or
 - d) Any employee or representative of Comeau, Maldegen, Templeman & Indall ([@cmtesantafe.com](mailto:cmtesantafe.com)); or
 - e) Any employee or representative of Uranium One group or its affiliates ([@u1h.com](mailto:u1h.com), [@ultrading.com](mailto:ultrading.com), [@uranium1.com](mailto:uranium1.com), [@u1holding.com](mailto:u1holding.com)); or
 - f) Any employee or representative of Cameco Corp. ([@cameco.com](mailto:cameco.com)); or
 - g) Any employee or representative of Dentons US ([@dentons.com](mailto:dentons.com)); or
 - h) Any employee or representative of Rio Tinto Group or its affiliates ([@riotinto.com](mailto:riotinto.com)); or
 - i) Any employee or representative of Ernst & Young ([@ey.com](mailto:ey.com)); or
 - j) Any employee or representative of the Smith-Free Group; or
 - k) Any employee or representative of BHP Billiton or its affiliates ([@bhp.com](mailto:bhp.com)).

We have completed our review of the records responsive to your request. We have enclosed three portable document format (PDF) electronic records, consisting of 139 pages, responsive to item 1 of your request, which is being released to you in part. We reasonably foresee that disclosure would harm an interest protected by one or more of the nine exemptions to the FOIA's general rule of disclosure; therefore, portion of the documents are protected from release by FOIA Exemption (b)(6) ("Exemption 6"). The exempted information will not be released and has been redacted from the enclosed documents.

Exemption 6 allows an agency to withhold “personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.” 5 U.S.C. § 552(b)(6).

The phrase “similar files” covers any agency records containing information about a particular individual that can be identified as applying to that individual. To determine whether releasing records containing information about a particular individual would constitute a clearly unwarranted invasion of personal privacy, we are required to balance the privacy interest that would be affected by disclosure against any public interest in the information.

Under the FOIA, the only relevant public interest to consider under the exemption is the extent to which the information sought would shed light on an agency’s performance of its statutory duties or otherwise let citizens ‘know what their government is up to.’ The burden is on the requester to establish that disclosure would serve the public interest. When the privacy interest at stake and the public interest in disclosure have been determined, the two competing interests must be weighed against one another to determine which is the greater result of disclosure: the harm to personal privacy or the benefit to the public. The purposes for which the request for information is made do not impact this balancing test, as a release of information requested under the FOIA constitutes a release to the general public.

The information that has been withheld under Exemption 6 consists of personal mobile number; personal email address; the direct phone number and email address of Budget Examiner of the Office of Management and Budget, as the information customarily not released to the public; and other personal information. We have determined that the individuals to whom this information pertains to have a substantial privacy interest in withholding it. Additionally, you have not provided information that explains a relevant public interest under the FOIA in the disclosure of this personal information and we have determined that the disclosure of this information would shed little or no light on the performance of the agency’s statutory duties. Because the harm to personal privacy is greater than whatever public interest may be served by disclosure, release of the information would constitute a clearly unwarranted invasion of the privacy of these individuals and we are withholding the information under Exemption 6.

Additionally, after thoroughly searching our files, the U.S. Geological Survey did not locate records responsive to item 2 of your request. I am responsible for this denial.

On September 10, 2018, we approved your request for a fee waiver.

Mr. Nour Suleiman, Government Information Specialist, is responsible for this partial denial. Mr. Gabriel Lohr, Attorney-Advisor, Department of the Interior, in the Office of the Solicitor was consulted.

You may appeal this response to the Department’s FOIA/Privacy Act Appeals Officer. If you choose to appeal, the FOIA/Privacy Act Appeals Officer must receive your FOIA appeal no later than 90 workdays from the date of this letter. Appeals arriving or delivered after 5 p.m. Eastern Time, Monday through Friday, will be deemed received on the next workday.

Your appeal must be made in writing. You may submit your appeal and accompanying materials to the FOIA/Privacy Act Appeals Officer by mail, courier service, fax, or email. All

communications concerning your appeal should be clearly marked with the words: "FREEDOM OF INFORMATION APPEAL." You must include an explanation of why you believe the USGS's response is in error.

You must also include with your appeal copies of all correspondence between you and USGS concerning your FOIA request, including your original FOIA request and USGS's response. Failure to include with your appeal all correspondence between you and USGS will result in the Department's rejection of your appeal, unless the FOIA/Privacy Act Appeals Officer determines (in the FOIA/Privacy Act Appeals Officer's sole discretion) that good cause exists to accept the defective appeal. Please include your name and daytime telephone number (or the name and telephone number of an appropriate contact), email address and fax number (if available) in case the FOIA/Privacy Act Appeals Officer needs additional information or clarification of your appeal.

DOI FOIA/Privacy Act Appeals Office Contact Information:

Department of the Interior
Office of the Solicitor
1849 C Street, N.W.
MS-6556 MIB
Washington, D.C. 20240
Telephone: (202) 208-5339
Fax: (202) 208-6677
Email: FOIA.Appeals@sol.doi.gov

For more information on FOIA Administrative Appeals, you may review Subpart H of the Department's FOIA regulations, [43 C.F.R. Part 2, Sub-part H](#).

Additionally, as part of the 2007 OPEN Government Act FOIA amendments, the Office of Government Information Services (OGIS) was created to offer mediation services to resolve disputes between FOIA requesters and Federal agencies as a nonexclusive alternative to litigation. Using OGIS services does not affect your right to pursue litigation. You may contact OGIS in any of the following ways:

Office of Government Information Services (OGIS)
National Archives and Records Administration
Room 2510
8601 Adelphi Road
College Park, Maryland 20740-6001
Telephone: (202) 741-5770
Fax: (202) 741-5769
Toll-free: 1-877-684-6448
Email: ogis@nara.gov
Web: <https://ogis.archives.gov>

Please note that using OGIS services does not affect the timing of filing an appeal with the Department's FOIA & Privacy Act Appeals Officer.

You also may seek dispute resolution services from our FOIA Public Liaison and FOIA Officer, Mr. Brian May, at the following address:

U.S. Geological Survey
Department of the Interior
5522 Research Park Drive
Baltimore, Maryland 21228
Telephone: (443) 498-5521
Fax: (443) 498-5510
Email: foia@usgs.gov

This completes our response to your request. If you have any questions about our response, you may contact me by phone at (303) 236-2733, by email at foia@usgs.gov, or by mail at Denver Federal Center, Box 25046, Mail Stop 801A, Denver, Colorado 80225.

Thank you for your interest in the U.S. Geological Survey.

Sincerely,
Nour Suleiman 
Digitally signed by
Nour Suleiman
Date: 2019.06.11
08:39:41 -06'00'
Nour Suleiman
U.S. Geological Survey
Government Information Specialist

Enclosures (3 PDFs, 139 pages):

- 2018-00222 – Fortier Combined_Redacted (122 Pages)
- 2018-00222 – Nasser Combined_Redacted (13 Pages)
- 2018-00222 – Seal-Proposal-FY19 (4 Pages)



Fortier, Steven <sfortier@usgs.gov>

[EXTERNAL] Rio Tinto NDA

12 messages

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Tue, Jul 10, 2018 at 4:43 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>

Hi Steve,

We have made good process and think we can get going on gathering and providing the tailings data we discussed.

However, would you first be willing to sign the attached NDA?

Thanks,

Ryan

KUC - USGS Mutual NDA.docx
73K

Steven Fortier <sfortier@usgs.gov>

Tue, Jul 10, 2018 at 6:48 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>

Hi Ryan,

It will have to be reviewed by our Solicitor's Office. I will try to expedite this.

Regards

Sent from my iPhone

[Quoted text hidden]

<KUC - USGS Mutual NDA.docx>

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Wed, Jul 11, 2018 at 7:41 AM

To: Steven Fortier <sfortier@usgs.gov>

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>

Thanks, Steve. Sounds great - please let us know if there's anything you need in the interim.

Best
Ryan

From: Steven Fortier <sfortier@usgs.gov>
Sent: Tuesday, July 10, 2018 5:48:12 PM
To: Stanton, Ryan (RTHQ)
Cc: Stewart, George (RT Legal); Forsyth, Bill (RTCP); Brown, Josh (RTKC)
Subject: Re: [EXTERNAL] Rio Tinto NDA

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov> Thu, Aug 2, 2018 at 10:03 AM
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Hi Ryan,

I have the NDA back from our Office of Policy and Analysis. They have suggested some relatively minor changes which you will see in the redlined version attached. If the changes are acceptable for KUC I am authorized to sign this on behalf of the USGS. I have attached a clean Word document, if there need to be additional changes please make them on that version. Otherwise our preferred process would be for KUC to sign the pdf version, also attached, send it to me, and I would sign for USGS and return a fully executed copy to KUC. Looking forward to working with you on this.

Best regards,

[Quoted text hidden]

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

3 attachments

-  **KUC - USGS Mutual NDA - reviewed - approved - redlined.docx**
53K
-  **KUC - USGS Mutual NDA - reviewed - approved - clean.docx**
51K
-  **KUC - USGS Mutual NDA - clean - pdf.pdf**
109K

Stewart, George (RT Legal) <George.Stewart2@riotinto.com> Wed, Aug 8, 2018 at 11:32 AM
To: "Fortier, Steven" <sfortier@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Steven:

I have reviewed and approved the revisions to the Mutual NDA. Looking to have executed today and will revert to you soon.

Many thanks,

George

George J. Stewart

Chief Counsel – U.S.

Rio Tinto

4700 W. Daybreak Parkway

South Jordan, UT 84009 United States of America

T: (801) 204-2803 M: (385) 237-7132

george.stewart2@riotinto.com. <http://www.riotinto.com>

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From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Thursday, August 02, 2018 8:04 AM

To: Stanton, Ryan (RTHQ)

Cc: Stewart, George (RT Legal); Forsyth, Bill (RTCP); Brown, Josh (RTKC); GS-G-ER NMIC Records Mgt

[Quoted text hidden]

[Quoted text hidden]

Stewart, George (RT Legal) <George.Stewart2@riotinto.com>

Wed, Aug 8, 2018 at 12:20 PM

To: "Fortier, Steven" <sfortier@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

DOI-18-0543-A-000003

Steven,

Signed NDA attached.

Please revert with fully executed document via reply email.

Regards,

George

George J. Stewart

Chief Counsel – U.S.

Rio Tinto

4700 W. Daybreak Parkway

South Jordan, UT 84009 United States of America

T: (801) 204-2803 M: (385) 237-7132

george.stewart2@riotinto.com. <http://www.riotinto.com>

This email is confidential and may also be privileged. If you are not the intended recipient, please notify us immediately and delete this message from your system without first printing or copying it. Any personal data in this email (including any attachments) must be handled in accordance with the Rio Tinto Group Data Protection Policy and all applicable data protection laws



From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Thursday, August 02, 2018 8:04 AM
To: Stanton, Ryan (RTHQ)
Cc: Stewart, George (RT Legal); Forsyth, Bill (RTCP); Brown, Josh (RTKC); GS-G-ER NMIC Records Mgt

[Quoted text hidden]

[Quoted text hidden]

 **Scan-to-Me from 10.140.250.65 2018-08-08 101848.pdf**
1398K

Fortier, Steven <sfortier@usgs.gov>

Wed, Aug 8, 2018 at 3:56 PM

To: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>
Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Hi George,

Fully executed version attached.

Thanks,

[Quoted text hidden]

 **KUC-USGS NDA - Fully Executed.pdf**
376K

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Thu, Aug 9, 2018 at 1:20 PM

To: "Fortier, Steven" <sfortier@usgs.gov>, "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>
Cc: "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Steve – thanks for this.

Could we all grab a few minutes to discuss in person when you're at RTK next week?

Thanks,

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Wednesday, August 8, 2018 3:56 PM

To: Stewart, George (RT Legal) <George.Stewart2@riotinto.com>

Cc: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Forsyth, Bill (RTCP) <Bill.Forsyth@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

[Quoted text hidden]

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>

Thu, Aug 9, 2018 at 3:00 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

DOI-18-0543-A-000005

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - [EXTERNAL] Rio Tinto NDA

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Absolutely. Looking forward to the visit.

Regards,

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, Aug 20, 2018 at 10:25 AM

To: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Steve – good morning. Wanted to follow-up on our conversation last week.

Should we set up a quick call this week to kick everything off?

Thanks,

Ryan

From: Stewart, George (RT Legal)

Sent: Wednesday, August 8, 2018 12:21 PM

To: Fortier, Steven <sfortier@usgs.gov>; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Cc: Forsyth, Bill (RTCP) <Bill.Forsyth@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Subject: RE: [EXTERNAL] Rio Tinto NDA

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>

Tue, Aug 21, 2018 at 4:25 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Hi Ryan,

Thanks for the follow up. Unfortunately the principal USGS scientist I have tapped for this is in Afghanistan, returning to the U.S. on the 29th, and I am going out of town tomorrow evening, back Monday. Can we set something up for Thurs or Friday next week (30th or 31st)?

Regards,

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Fri, Aug 24, 2018 at 11:21 AM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Stewart, George (RT Legal)" <George.Stewart2@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, GS-G-ER NMIC Records Mgt <nmicrecordsmgt@usgs.gov>

Thanks, Steve.

DOI-18-0543-A-000006

Thursday morning next week would work for me – Bill and team?

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Tuesday, August 21, 2018 4:25 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Stewart, George (RT Legal) <George.Stewart2@riotinto.com>; Forsyth, Bill (RTCP)
<Bill.Forsyth@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; GS-G-ER NMIC Records Mgt
<nmicrecordsmgt@usgs.gov>

[Quoted text hidden]

[Quoted text hidden]

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this “Agreement”) is entered into under the authority contained in the Technology Transfer Act of 1986, 15 U.S. Code Section 3710a and made as of August __, 2018 (“Effective Date”), by and between THE UNITED STATES GEOLOGICAL SURVEY (“USGS”) and KENNEDY UTAH COPPER LLC and its affiliates (“KUC”) (individually, a “Party” and collectively, the “Parties”).

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the “Purpose”);

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other’s confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Definition of Confidential Information.** “Confidential Information” means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as “Confidential”, “Proprietary” or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements (“Intellectual Property”). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party’s products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party’s products and inventions. For purposes of this Agreement, the term “Receiving Party” means a Party that is the recipient of or has access to Confidential Information of the other Party (the “Disclosing Party”).

2. **Exceptions.** This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party’s Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party’s Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party’s disclosure pursuant to this

subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc" means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either

Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. **Term.** The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. **No License/No Representation.** Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. **No Obligation.** Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. **Remedies.** Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. **Notices.** All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:

USGS National Minerals Information Center
Attn: Steven M. Fortier
Email: sfortier@usgs.gov
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192

12. **Severability.** Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with Federal law and the substantive laws of Nevada.

14. **Miscellaneous.** Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

15. **Counterparts.** This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

USGS

By: _____

Title: Director, National Minerals Information Center

Date: _____

KENNECOTT UTAH COPPER LLC

By: _____

Title: _____

Date: _____

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this “Agreement”) is entered into under the authority contained in the Technology Transfer Act of 1986, 15 U.S. Code Section 3710a and made as of August __, 2018 (“Effective Date”), by and between THE UNITED STATES GEOLOGICAL SURVEY (“USGS”) and KENNECOTT UTAH COPPER LLC and its affiliates (“KUC”) (individually, a “Party” and collectively, the “Parties”).

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the “Purpose”);

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other’s confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Definition of Confidential Information.** “Confidential Information” means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as “Confidential”, “Proprietary” or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements (“Intellectual Property”). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party’s products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party’s products and inventions. For purposes of this Agreement, the term “Receiving Party” means a Party that is the recipient of or has access to Confidential Information of the other Party (the “Disclosing Party”).

2. **Exceptions.** This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party’s Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party’s Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party’s disclosure pursuant to this

subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc" means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either

Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. **Term.** The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. **No License/No Representation.** Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. **No Obligation.** Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. **Remedies.** Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. **Notices.** All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:

USGS National Minerals Information Center
Attn: Steven M. Fortier
Email: sfortier@usgs.gov
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192

12. **Severability.** Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with Federal law and the substantive laws of Nevada.

14. **Miscellaneous.** Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

15. **Counterparts.** This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

USGS

By: _____

Title: Director, National Minerals Information Center

Date: _____

KENNECOTT UTAH COPPER LLC

By: _____

Title: _____

Date: _____

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this "Agreement") is entered into under the authority contained in the Technology Transfer Act of 1986, 15 U.S. Code Section 3710a and made as of July ___, 2018 ("Effective Date"), by and between THE UNITED STATES GEOLOGICAL SURVEY ("USGS") and KENNEDY UTAH COPPER LLC and its affiliates ("KUC") (individually, a "Party" and collectively, the "Parties").

Commented [A1]: It is required for USGS to provide authority to enter into agreement

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the "Purpose");

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other's confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Definition of Confidential Information.** "Confidential Information" means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as "Confidential", "Proprietary" or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements ("Intellectual Property"). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party's products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party's products and inventions. For purposes of this Agreement, the term "Receiving Party" means a Party that is the recipient of or has access to Confidential Information of the other Party (the "Disclosing Party").

2. **Exceptions.** This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party's Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party's Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party's disclosure pursuant to this

subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc" means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either

Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. Term. The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. No License/No Representation. Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. No Obligation. Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. Remedies. Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. Notices. All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:
Kennebott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:
Information Center

USGS [INSERT FULL NAME OF ENTITY] National Minerals
Reston, Va
[INSERT ADDRESS AND EMAIL OF CONTACT] Attn: Steven M.

Fortier
Email: sfortier@usgs.gov
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192

12. **Severability.** Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with Federal law and the substantive laws of Nevada, without regard to its conflict of laws rules or its choice of laws rules.

14. **Miscellaneous.** Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

Commented [A2]: Federal Gov can only be subject to laws consistent with Federal Law

15. **Counterparts.** This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

USGS

KENNECOTT UTAH COPPER LLC

By: _____

By: _____

Title: Director, National Minerals Information Center

Title: _____

Date: _____

Date: _____

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this "Agreement") is made as of July __, 2018 ("Effective Date"), by and between THE UNITED STATES GEOLOGICAL SURVEY ("USGS") and KENNEDY UTAH COPPER LLC and its affiliates ("KUC") (individually, a "Party" and collectively, the "Parties").

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the "Purpose");

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other's confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Definition of Confidential Information. "Confidential Information" means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as "Confidential", "Proprietary" or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements ("Intellectual Property"). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party's products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party's products and inventions. For purposes of this Agreement, the term "Receiving Party" means a Party that is the recipient of or has access to Confidential Information of the other Party (the "Disclosing Party").

2. Exceptions. This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party's Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party's Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party's disclosure pursuant to this subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of

any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. **Term.** The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. **No License/No Representation.** Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. **No Obligation.** Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. **Remedies.** Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. **Notices.** All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:

USGS [INSERT FULL NAME OF ENTITY]
Reston, Va
[INSERT ADDRESS AND EMAIL OF CONTACT]

12. Severability. Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with the substantive laws of Nevada, without regard to its conflict of laws rules or its choice of laws rules.

14. Miscellaneous. Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

15. Counterparts. This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

USGS

KENNECOTT UTAH COPPER LLC

By: _____

By: _____

Title:

Title: _____

Date:

Date:

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this "Agreement") is entered into under the authority contained in the Technology Transfer Act of 1986, 15 U.S. Code Section 3710a and made as of August __, 2018 ("Effective Date"), by and between THE UNITED STATES GEOLOGICAL SURVEY ("USGS") and KENNECOTT UTAH COPPER LLC and its affiliates ("KUC") (individually, a "Party" and collectively, the "Parties").

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the "Purpose");

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other's confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Definition of Confidential Information.** "Confidential Information" means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as "Confidential", "Proprietary" or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements ("Intellectual Property"). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party's products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party's products and inventions. For purposes of this Agreement, the term "Receiving Party" means a Party that is the recipient of or has access to Confidential Information of the other Party (the "Disclosing Party").

2. **Exceptions.** This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party's Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party's Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party's disclosure pursuant to this

subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either

Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. **Term.** The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. **No License/No Representation.** Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. **No Obligation.** Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. **Remedies.** Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. **Notices.** All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:

USGS National Minerals Information Center
Attn: Steven M. Fortier
Email: sfortier@usgs.gov
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192

12. **Severability.** Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with Federal law and the substantive laws of Nevada.

14. **Miscellaneous.** Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

15. **Counterparts.** This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

USGS

By: S. M. Fortier
Title: Director, National Minerals Information Center
Date: 8/8/18

KENNECOTT UTAH COPPER LLC

By: T. R. St. John
Title: TAX OFFICER
Date: 8/8/18

Approved as to form
RTKC LEGAL DEPARTMENT
By: George J. Stewart
George J. Stewart
Chief Counsel, US
DOL-18-0543-A-000027
Date: 8/8/2018

MUTUAL CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Mutual Confidentiality and Non-Disclosure Agreement (this "Agreement") is entered into under the authority contained in the Technology Transfer Act of 1986, 15 U.S. Code Section 3710a and made as of August __, 2018 ("Effective Date"), by and between THE UNITED STATES GEOLOGICAL SURVEY ("USGS") and KENNECOTT UTAH COPPER LLC and its affiliates ("KUC") (individually, a "Party" and collectively, the "Parties").

WHEREAS, the Parties are engaged in ongoing discussions related to EO 13817 and may cooperate in one or more studies, upon prior executive approval (the "Purpose");

WHEREAS, to fully evaluate the Purpose, the Parties may need access to the other's confidential and proprietary information; and

WHEREAS, the Parties wish to establish the terms and conditions under which any such exchange of confidential and proprietary information may take place.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Definition of Confidential Information. "Confidential Information" means any information disclosed previously or in the future by a Disclosing Party (as hereinafter defined) to a Receiving Party (as hereinafter defined) in connection with the Purpose, either directly or indirectly, in writing, orally or by inspection of tangible objects including without limitation, which is designated as "Confidential", "Proprietary" or some similar designation, or whose confidential or proprietary nature is reasonably apparent under the circumstances. This information includes, but is not limited to, product formulas, products, processes, inventions, trade information, trade secrets, know-how, source code, software, design drawings, research, development reports, schematics, manuals, engineering reports, specifications, flow charts, marketing forecasts and plans, customer lists, cost information, methods of business operation, business plans, business and marketing concepts, financial information, projections, sales information and information regarding business partners, suppliers, vendors, distributors and customers, and notes and records regarding the foregoing, and further including any information that the Disclosing Party is required by third parties to be kept confidential. It also includes information regarding trademarks, service marks, trade or business names, copyrights, mask works or circuit layouts, designs, inventions, patents, patent rights, trade secrets, moral rights, know how, proprietary information and other intellectual property in any and all countries, unions, and jurisdictions and under any and all laws, regulations, treaties, conventions and agreements ("Intellectual Property"). Intellectual Property includes registrations of, and applications to register, Intellectual Property and further includes patent applications. Confidential Information shall also include models, prototypes or samples, and molds, tools and dies related to the Disclosing Party's products and any manufacturing processes, processing information, technology and other information relating to the manufacture of the Disclosing Party's products and inventions. For purposes of this Agreement, the term "Receiving Party" means a Party that is the recipient of or has access to Confidential Information of the other Party (the "Disclosing Party").

2. Exceptions. This Agreement shall impose no obligation upon the Receiving Party with respect to any of the Disclosing Party's Confidential Information which the Receiving Party can reasonably demonstrate: a) is now or has subsequently become publicly known or available by publication, commercial use or otherwise other than by way of actions constituting a breach of this Agreement; b) can be shown by written records of the Receiving Party to have been known to the Receiving Party at the time of receipt and not subject to an obligation of confidentiality to the Disclosing Party; c) is subsequently rightfully furnished to the Receiving Party by a third party not having an obligation of confidentiality to the Disclosing Party; d) is independently developed by employees or consultants of the Receiving Party without use or reliance upon the Disclosing Party's Confidential Information; e) is explicitly approved for public release by prior written authorization of the Disclosing Party; or f) is required to be disclosed pursuant to law or governmental or judicial process, provided that the Receiving Party shall give the Disclosing Party written notice of such requirement prior to disclosure, to the extent permitted by law, so that the Disclosing Party may seek a protective order or other appropriate relief, and Receiving Party's disclosure pursuant to this

subsection f) is limited to that specifically required, in both content and manner, by such law or governmental or judicial process.

3. Non-Disclosure and Non-Use. A Receiving Party shall not disclose any Confidential Information of the Disclosing Party to third parties or to the Receiving Party's employees, except those employees of the Receiving Party or affiliated third parties who are required to have the information for the Purpose. All of Receiving Party's employees who are made aware of any Confidential Information are bound to the confidentiality obligations of this Agreement. A Receiving Party shall not use any Confidential Information of the Disclosing Party for any purpose other than the Purpose, and without limiting or affecting the foregoing, specifically will not use the other's Confidential Information in the operation of its business unless the Receiving Party has obtained the prior written consent of the Disclosing Party to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit). Neither Party shall reverse engineer any Confidential Information of the other Party, and shall not permit any such activity by any third party without prior written consent of the Disclosing Party.

4. KUC and Other Rio Tinto Group Members. Notwithstanding anything to the contrary in this Agreement, USGS agrees that any Rio Tinto Group member may use USGS's Confidential Information disclosed to KUC on the same terms and conditions as KUC, provided that KUC shall ensure that such Rio Tinto Group member agrees to be bound by its general confidentiality obligations that are substantially similar to those in this Agreement prior to disclosing the information to the Rio Tinto Group member; any damage to any Rio Tinto Group member by USGS's violation of this Agreement is correspondingly damage to KUC; KUC is entitled to seek injunctive and any other relief or remedy to which each such Rio Tinto Group member would have been entitled; and KUC has standing on behalf of each such Rio Tinto Group member to enforce this Agreement. For purposes of this Agreement, the following definition apply: "Rio Tinto Group" means the dual listed company structure incorporation Rio Tinto plc and Rio Tinto Limited and including: (a) any Affiliate of Rio Tinto plc or Rio Tinto Limited; (b) any body corporate or joint venture in which Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited has a participating interest of not less than 50%; (c) any body corporate or joint venture managed by Rio Tinto plc or Rio Tinto Limited or any Affiliate of Rio Tinto plc or Rio Tinto Limited; and (d) such other entities as the parties agree in writing. "Rio Tinto Limited" means Rio Tinto Limited (ABN 96 004 458 404) having its registered office at 33rd Floor, 120 Collins Street, Melbourne, Victoria 3000. "Rio Tinto plc" means Rio Tinto plc (Company No. 719885) of 2 Eastbourne Terrace, London W2 6LG, United Kingdom.

4. Maintenance of Confidentiality. A Receiving Party shall take reasonable measures to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information of the Disclosing Party. Without limiting the foregoing, a Receiving Party shall take at least those measures that it takes to protect its own highly confidential information and shall ensure that its employees and representatives who have access to Confidential Information of the Disclosing Party have signed a confidentiality agreement at least as protective of the Disclosing Party's Confidential Information as this Agreement, prior to any disclosure of such information. The Receiving Party will be responsible for any breach of the terms of such agreement by such employees and/or representatives. A Receiving Party shall immediately notify the Disclosing Party in the event of any unauthorized use or disclosure of the Disclosing Party's Confidential Information.

5. Return Of Information. The Parties agree that all Confidential Information provided by the Disclosing Party under this Agreement (including any documents, copies, reproductions, extracts or summaries which contain such Confidential Information, regardless of who made such) shall remain the exclusive property of the Disclosing Party. The Receiving Party agrees to return to the Disclosing Party (on written demand by the Disclosing Party or at the termination of the Parties' discussions) all Confidential Information furnished to it in tangible form, and agrees that it shall retain no documents, reproductions, copies, extracts or summaries of any Confidential Information, except that the Receiving Party may retain backup computer records of the Confidential Information for archival purposes. If required by applicable law, the Receiving Party shall provide to the Disclosing Party a declaration from a duly authorised senior officer of the Receiving Party that, to his or her personal knowledge, having made reasonable inquiries, all such records have been delivered, erased or destroyed in accordance with this Section 6.

6. Work Product. All work product, property, data, prototypes, samples, documentation, information or materials ("Work Product") conceived, discovered, developed or created which includes Confidential Information disclosed by both Parties in performance of the Purpose of this Agreement shall be jointly owned by the Parties unless otherwise agreed in writing. Any Work Product conceived, discovered, developed or created solely by either

Party independent of the other Party's Confidential Information shall be the sole and exclusive property of the Party which developed the Work Product. Nothing herein shall be construed to restrict, impair, or deprive either Party of any of their respective Intellectual Property that existed prior to and independent of or unrelated to the performance of the Purpose under this Agreement.

7. **Term.** The obligations of a Receiving Party hereunder shall continue until the earlier of the following: (i) when the Confidential Information no longer satisfies the definition of Confidential Information under Sections 1 or 2, (ii) when the Disclosing Party notifies the Receiving Party in writing that the Confidential Information is no longer to be treated as Confidential Information for the purposes of this Agreement, or (iii) for a period terminating on the date five (5) years from the date on which Confidential Information is last disclosed under this Agreement. The term for disclosing Confidential Information under this Agreement is one (1) year from the Effective Date. A Receiving Party's obligations with respect to any trade secrets of a Disclosing Party shall extend for as long as Disclosing Party is entitled to trade secret protection for the same under applicable law.

8. **No License/No Representation.** Any disclosure under this Agreement is made without any right or license to utilize or to practice any of the Intellectual Property of the Disclosing Party, including information, improvements, developments, inventions, patents, trade secrets and know-how, or to copy, reproduce or make derivative works under any of the copyrights of the Disclosing Party, except as is expressly stated in this Agreement. No representation or warranty is made by the Disclosing Party that the Confidential Information provided to the Receiving Party is complete or accurate in all respects. The Receiving Party accepts all risk of use of, and reliance on, the Confidential Information.

9. **No Obligation.** Nothing herein shall obligate either Party to disclose to the other Party any Confidential Information it elects to withhold. Further, nothing herein shall obligate either Party to proceed with any transaction between them, and each Party reserves the right, in its sole discretion, to terminate the discussions contemplated by this Agreement concerning the Purpose.

10. **Remedies.** Each Party agrees and acknowledges that any violation or threatened violation of this Agreement may cause irreparable injury to the other Party, entitling the other Party to seek injunctive relief in addition to any other rights and remedies available to such Party at law or in equity.

11. **Notices.** All notices and other communications required or permitted hereunder shall be in writing, and shall be either personally delivered, sent by electronic mail, or delivered by overnight delivery service, and shall be deemed received upon the earlier of: (a) if personally delivered, the date of delivery to the address of the person to receive such notice, (b) if given by electronic mail, when sent, or (c) if sent by overnight mail, the business day following its deposit in such overnight mail facility. Any notice, request, demand, direction or other communication sent by electronic mail must be confirmed by letter mailed or delivered in accordance with another of the foregoing methods. Notice shall be given at the following addresses:

If to KUC:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84009
Attn: Bill Forsyth
Email: bill.forsyth@riotinto.com

With a copy to:
George Stewart
Chief Counsel - US
Rio Tinto Legal Department
4700 Daybreak Parkway
South Jordan, UT 84009
Email: George.stewart2@riotinto.com

If to USGS:

USGS National Minerals Information Center
Attn: Steven M. Fortier
Email: sfortier@usgs.gov
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192

12. **Severability.** Should any provision or clause of this Agreement be declared to be invalid or unenforceable by a court or other agreed dispute resolution body, that particular clause or provision shall be modified by the court or dispute resolution body to the extent necessary to render it enforceable or valid, if possible, and if impossible, shall be severed from the Agreement, with the remaining provisions to be enforced.

13. **Governing Law.** This Agreement, and its formation, operation, and performance, shall be governed, construed, performed and enforced in accordance with Federal law and the substantive laws of Nevada.

14. **Miscellaneous.** Each Party agrees, acknowledges and represents that the individuals executing this Agreement have the authority to do so on behalf of their respective companies. This Agreement shall bind and inure to the benefit of the Parties hereto and their successors and permitted assigns. This document contains the entire agreement between the Parties with respect to the subject matter hereof. Any failure to enforce any provision of this Agreement shall not constitute a waiver thereof or of any other provision hereof. This Agreement may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto. Neither Party may assign its rights or obligations hereunder without the other Party's written consent. Each Party shall be responsible for only its own fees and costs incurred pursuant to this Agreement.

15. **Counterparts.** This Agreement may be executed in counterparts, any one of which need not contain the signatures of more than one party, but all of which, taken together, shall constitute one and the same agreement. A facsimile or PDF copy of a signature shall be effective as an original signature.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed effective as of the Effective Date.

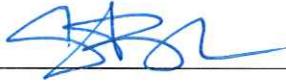
USGS

By: _____

Title: Director, National Minerals Information Center

Date: _____

KENNECOTT UTAH COPPER LLC

By:  _____

Title: TAX OFFICER

Date: 8/8/18

Approved as to form
RTKC LEGAL DEPARTMENT
By: 
George J. Stewart
Chief Counsel - US
DOI-18-0543-A-000031
Date: 8/8/2018



Fortier, Steven <sfortier@usgs.gov>

[EXTERNAL] RTK visit - USGS

1 message

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, Jun 25, 2018 at 2:52 PM

To: "Fortier, Steven" <sfortier@usgs.gov>, Daniel Flanagan <dflanagan@usgs.gov>, "Anderson, Charles (Sky)"

<csanderson@usgs.gov>

Cc: "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Hey guys - hope you had a great weekend. Wanted to send on a few pictures from your RTK visit.

Look forward to continuing our discussion. We will revert back soon.

Best,
Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

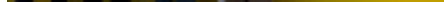
12 attachments



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IMG_1210.jpg
131K



IMG_1205.jpg
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Fortier, Steven <sfortier@usgs.gov>

[EXTERNAL] RTK visit

4 messages

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Fri, Jun 22, 2018 at 11:00 AM

To: "Fortier, Steven" <sfortier@usgs.gov>, Daniel Flanagan <dflanagan@usgs.gov>, "Anderson, Charles (Sky)" <csanderson@usgs.gov>

Gents,

Happy Friday – hope you arrived home safe and had a great week.

Wanted to touch base with you to see if there is anything you need from us in terms of the follow-up letter and actions we discussed?

Thanks and have a great weekend!

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625

ryan.stanton@riotinto.com <http://www.riotinto.com>

Fortier, Steven <sfortier@usgs.gov>

Mon, Jun 25, 2018 at 9:52 AM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Hi Ryan,

Yes, as we discussed, it would be great if we could have access to the report on the drilling and testing of the tailings pile that was mentioned. I think it would be of interest for USGS to do a resource assessment of byproduct potential as a kind of case study. Anything you could share with us would be treated as confidential and not disclosed without specific, written consent from Rio Tinto.

Also, we have linked up with our contacts at DLA and expressed interest in a joint meeting with Rio, DLA, USGS, and the Office of the Secretary of Defense. Their guidance was that we should have a project to pitch to OSD. I have been

thinking about this and I think what would be useful would be a matrix of all metals / materials - copper, moly, rhenium, bismuth etc, for both Bingham Canyon and Resolution, with categories which capture where the elements report in your process, - concentrate(s), tailings, slimes etc, what the barriers are to recovery, such as environmental, economic, process capability, technological, investment, logistics etc. The idea would be to be able to talk about mineral resource potential in the context of constraints on implementation of capacity. We should also generate a two page briefing memo to accompany the matrix to capture particularly critical mineral potential from BC and Resolution.

Best regards,

[Quoted text hidden]

--

Steven M. Fortier, Director
 National Minerals Information Center
 U.S. Geological Survey
 988 National Center, Reston, VA 20192
 Phone: 703-648-4920

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, Jun 25, 2018 at 3:53 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>

Hi Steve,

Thanks very much for the note below – we are excited to put this into action. I am cc'ing in colleagues to initiate the next steps.

Regarding the report on the drilling and testing of the tailings pile, can you send us an official request on USGS letterhead? Please include requisite language around confidentiality and intended usage. Bill: anything else we need from your perspective?

For the roundtable with OSD, we are beginning to sketch out a 1-2 page memo, as you suggested. Who specifically did you have in mind within OSD?

Perhaps we can set up a call with you to discuss our briefing memo in the next week or two, ensuring we're on the right path?

Thanks again,

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Monday, June 25, 2018 9:53 AM

To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Subject: Re: [EXTERNAL] RTK visit

[Quoted text hidden]

DOI-18-0543-A-000035

Fortier, Steven <sfortier@usgs.gov>

Wed, Jun 27, 2018 at 10:44 AM

To "Stanton, Ryan (RTHQ)" Ryan.Stanton@riotinto.com

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>

Hi Ryan,

See letter attached.

Best regards,

[Quoted text hidden]

 **Rio Tinto Letter - 6-27-18.docx**
66K



United States Department of the Interior

U.S. GEOLOGICAL SURVEY

National Minerals Information Center
988 National Center
Reston, VA 20192

Date: June 27, 2018

Subject: Follow up to Rio Tinto – Kennecott Site Visit

To: Ryan Stanton
Principal Advisor, External Affairs
801 Pennsylvania Avenue, NW, Suite 620
Washington, DC 20004

Ryan,

On behalf of my team at the U.S. Geological Survey – National Minerals Information Center (NMIC), I would like to thank you and your colleagues for hosting our visit to the Rio Tinto – Kennecott Operations on June 13-14, 2018. It was a very useful, informative visit for us. Pursuant to our discussions during the visit I would like to follow up on a couple of topics.

Presidential Executive Order 13817, “A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals”, signed on December 20, 2017 clearly identifies increasing reliance on imports of certain mineral commodities as a source of potential strategic vulnerabilities for the United States. The order tasks multiple U.S. Government agencies with the development of strategies to address these vulnerabilities. Porphyry copper deposits such as those being mined by Rio Tinto at Bingham Canyon in Utah, and under development at the Resolution deposit in Arizona, in addition to being major sources of essential metals such as copper and molybdenum, also contain significant quantities of such byproduct metals as rhenium, tellurium, bismuth, and platinum group metals, which are currently designated as critical minerals.

I believe it would be useful to pursue two case studies focused on your operations, in order to illustrate the critical mineral resource potential, and barriers to implementation of production capacity for these materials, for U.S. Government policymakers. These case studies would focus on 1) a critical minerals resource assessment for the ore materials at Bingham Canyon and Resolution, and 2) recovery of critical mineral resources from process tailings and other process streams at the Kennecott smelter and refinery operations in Utah.

We would need a couple of things from Rio Tinto in order to get these initiatives framed up internally within USGS. First, for the ore materials, it would be very useful to have a matrix which lists the metals and concentrations in both the Bingham Canyon and Resolution ores, where the metals report to in your processes, and a categorization of the barriers to the implementation of production capacity for byproduct metals, such as environmental, technological, economic, logistics, etc. Second, for the processed material resource assessment, we would need access to the report(s) on the drilling and testing of the tailings pile at the Kennecott operations, which you referenced in our discussions during our visit.

The NMIC has a long history and extensive experience with handling propriety data supplied to USGS by private sector companies. We would ensure that no data provided to us by Rio Tinto would be disclosed by us without your expressed, written consent. If a formal agreement is necessary to facilitate the exchange of information, this can be arranged.

The case studies that would result from cooperation between the USGS and Rio Tinto would be used as a scientific basis for informing policymakers regarding options for mitigation of critical mineral supply risks in a real world, major mining project context. It seems to me that this would be mutually beneficial to the interests of the U.S. Government and to Rio Tinto.

I would be happy to discuss this further with you and your colleagues.

Best regards,

Steven M. Fortier

Steven M. Fortier, PhD
Director, National Minerals Information Center
U.S. Geological Survey
Reston, VA 20192



Fortier, Steven <sfortier@usgs.gov>

[EXTERNAL] Thank you

3 messages

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, Aug 20, 2018 at 10:31 AM

To: "Jester, Julia" <jjester@usgs.gov>, David Ozman <dozman@usgs.gov>, "Onizuk, Jeffrey" <jonizuk@usgs.gov>, "Fortier, Steven" <sfortier@usgs.gov>

Dear USGS team,

I wanted to send a quick follow-up note to say thank you for coming out to Rio Tinto Kennecott last week. We thoroughly enjoyed the time with your team and all of the trip participants. Hopefully everyone on the tour enjoyed themselves and got a perspective on how we operate and the issues we are working on. We really value the partnership with have with USGS and look forward working with you closely moving forward.

I was hoping perhaps you could send me the contact details for everyone on the trip so I could follow-up with a thank you and be available for any follow-up questions they have?

Thanks again and look forward to seeing you again soon.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625

ryan.stanton@riotinto.com <http://www.riotinto.com>



DOI-18-0543-A-000039

Onizuk, Jeffrey <jonizuk@usgs.gov>

Tue, Aug 21, 2018 at 4:02 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: "Jester, Julia" <jjester@usgs.gov>, David Ozman <dozman@usgs.gov>, "Fortier, Steven" <sfortier@usgs.gov>

Here you go, Ryan.

Cheers,
Jeff O.
USGS

[Quoted text hidden]

 **Utah Invitees RT (1).xlsx**
12K

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Fri, Aug 24, 2018 at 11:20 AM

To: "Onizuk, Jeffrey" <jonizuk@usgs.gov>

Cc: "Jester, Julia" <jjester@usgs.gov>, David Ozman <dozman@usgs.gov>, "Fortier, Steven" <sfortier@usgs.gov>

Thanks!

From: Onizuk, Jeffrey [mailto:jonizuk@usgs.gov]

Sent: Tuesday, August 21, 2018 4:03 PM

To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Cc: Jester, Julia <jjester@usgs.gov>; David Ozman <dozman@usgs.gov>; Fortier, Steven <sfortier@usgs.gov>

Subject: Re: [EXTERNAL] Thank you

[Quoted text hidden]

Name	Party	Affiliation			E-Mail	Phone
Konolige, Rebecca	R	House Nat'l Resources Com. Energy & Minerals Sub. Staff			Rebecca.Konolige@mail.house.gov	202-225-9297
Bornstein, Jake	R	Rep. John Curtis' (R-UT) Office			Jake.Bornstein@mail.house.gov	202-225-7751
Bonner, Rebecca	D	Senate Energy & Nat'l Resources Committee Staff			Rebecca_Bonner@energy.senate.gov	202-224-5479
Shiekh, Pervaze	CRS	Natural Resources Policy			pshiekh@crs.loc.gov	202-707-6070
Mark Coffield	R	Rep. Stewart's (R-UT) Office			Mark.Coffield@mail.house.gov	202-225-9730
MacGregor, Robert	R	Rep. Steve Pearce's (R-NM) Office/Western Caucus			Robert.MacGregor@mail.house.gov	202-225-2365
Kremer, Marnie	D	House Nat'l Resources Com. Dems			marnie.kremer@mail.house.gov	202-225-6065
Hochberg, Jacob	D	Rep. Velazquez's (D-NY) Office			jacob.hochberg@mail.house.gov	202-225-2361
Lisowski, Nicholas	R	Rep. Westerman's (R-AR) Office			nicholas.lisowski@mail.house.gov	202-225-3772
Larson, Lance	CRS	Minerals & Energy Policy			llarson@crs.loc.gov	605-431-2740
Ray, Aaron	OMB	USGS Budget Examiner			(b) (6) .gov	(b) (6)
DOI/USGS		Role				
Thiele, Aaron		DOI Congressional Affairs			aaron_thiele@ios.doi.gov	202-208-5657
Lang, Jeff		DOI Budget			jeffrey_lang@ios.doi.gov	202-208-4480
Plumlee, Geoff		Acting Associate Director, USGS Energy & Minerals Mission Area			gplumlee@usgs.gov	703-648-6403
Crafford, Tom		USGS Mineral Resources Program Coordinator			tcraftord@usgs.gov	703-648-6108
Fortier, Steve		Director, National Minerals Information Center (NMIC) (USGS)			sfortier@usgs.gov	703-648-4920
Jester, Julia		Chief, USGS Congressional Affairs			jjester@usgs.gov	703-648-4300
Onizuk, Jeff		USGS Congressional Affairs			jonizuk@usgs.gov	703-648-4242
Ozman, Dave		USGS Central States Communications Chief (Denver)			dozman@usgs.gov	303-202-4744
LaVista, Jenn		USGS Central States Communications Team (Salt Lake City)			jlavista@usgs.gov	720-480-7875
Barrett, Anne		USGS Budget			abarrett@usgs.gov	703-648-4379
Susong, David		USGS UT Water Science Center Director			(retired)	
Pat Lambert		Acting USGS UT Water Science Center Director			plambert@usgs.gov	801-908-5053
Hayba, Dan		Director, USGS Eastern Energy Resources Science Center			dhayba@usgs.gov	703-648-6327



Fortier, Steven <sfortier@usgs.gov>

Re: [EXTERNAL] Update on your travel agenda for 12th fit testing.

5 messages

Anderson, Charles (Sky) <csanderson@usgs.gov>

Mon, Jun 4, 2018 at 11:47 AM

To: "Main, Joyce (RTCD)" <Joyce.Main@riotinto.com>

Cc: Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Joyce,

See the CC'd addresses for Danny's and Steve's email.

Sky

On Mon, Jun 4, 2018 at 11:34 AM, Main, Joyce (RTCD) <Joyce.Main@riotinto.com> wrote:

Hi Charles,

If you could please send me the email addresses for all that will be on the tour, I will email out the link for the induction videos. That will save a lot of time if these are completed in advance.

Kind regards,

Joyce

Joyce Main

Executive Assistant – Managing Director, Global Operations

Rio Tinto Copper & Diamonds

<4700 Daybreak Parkway, South Jordan, Utah 84009 USA>

Phone: 1-801-204-2127 Mobile: 1-801-739-3646

joyce.main@riotinto.com | <http://www.riotinto.com>

This email is confidential and may also be privileged. If you are not the intended recipient, please notify us immediately and delete this message from your system without first printing or copying it. Any personal data in this email (including any attachments) must be handled in accordance with the Rio Tinto Group Data Protection Policy and all applicable data protection laws.

From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Monday, June 4, 2018 9:07 AM
To: Main, Joyce (RTCD) <Joyce.Main@riotinto.com>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Forsyth, Bill (RTCP) <Bill.Forsyth@riotinto.com>
Subject: Re: [EXTERNAL] Update on your travel agenda for 12th fit testing.

Got it.

Thanks

On Mon, Jun 4, 2018 at 11:05 AM, Main, Joyce (RTCD) <Joyce.Main@riotinto.com> wrote:

Hello,

The facility that can provide you with fit testing is as follows:

Rocky Mountain Care Clinic
4088 W. 1820 South
Salt Lake City, UT 84104

Kind regards,

Joyce

Joyce Main
Executive Assistant – Managing Director, Global Operations
Rio Tinto Copper & Diamonds
4700 Daybreak Parkway, South Jordan, Utah 84009 USA
Phone: 1-801-204-2127 Mobile: 1-801-739-3646
joyce.main@riotinto.com | <http://www.riotinto.com>

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DOI-18-0543-A-000043

Main, Joyce (RTCD) <Joyce.Main@riotinto.com>
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc: Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Mon, Jun 4, 2018 at 11:52 AM

Please watch the site inductions at the following link –

<https://vimeopro.com/kennecott/hazard-awareness-videos/page/1>

Please watch the corporate office induction at the following link –

<http://www.buildinginduction.riotinto.com>

Kind regards,

Joyce

Joyce Main

Executive Assistant – Managing Director, Global Operations

Rio Tinto Copper & Diamonds

<4700 Daybreak Parkway, South Jordan, Utah 84009 USA>

Phone: 1-801-204-2127 Mobile: 1-801-739-3646

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From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Monday, June 4, 2018 9:48 AM
To: Main, Joyce (RTCD) <Joyce.Main@riotinto.com>
Cc: Daniel Flanagan <dflanagan@usgs.gov>; Steven Fortier <sfortier@usgs.gov>

[Quoted text hidden]

[Quoted text hidden]

Main, Joyce (RTCD) <Joyce.Main@riotinto.com> Tue, Jun 12, 2018 at 2:36 PM
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>
Cc: "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Gentlemen,

Can you please confirm if you have watched the videos at the links below?

Kind regards,

Joyce

Joyce Main

Executive Assistant – Managing Director, Global Operations

Rio Tinto Copper & Diamonds

4700 Daybreak Parkway, South Jordan, Utah 84009 USA

Phone: 1-801-204-2127 Mobile: 1-801-739-3646

joyce.main@riotinto.com | <http://www.riotinto.com>

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From: Main, Joyce (RTCD)
Sent: Monday, June 4, 2018 9:53 AM
To: 'Anderson, Charles (Sky)' <csanderson@usgs.gov>
Cc: Daniel Flanagan <dflanagan@usgs.gov>; Steven Fortier <sfortier@usgs.gov>
Subject: RE: [EXTERNAL] Update on your travel agenda for 12th fit testing.

[Quoted text hidden]

Brown, Josh (RTKC) <Josh.Brown@riotinto.com>
To: "Main, Joyce (RTCD)" <Joyce.Main@riotinto.com>, "Anderson, Charles (Sky)" <csanderson@usgs.gov>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>
Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Tue, Jun 12, 2018 at 3:28 PM

Gentlemen,

In discussing with safety at the mine, if you watch the general hazard awareness training, you will meet our requirements and do not need to watch any additional videos. If you have not or were unable to watch from the links we can watch tomorrow. Just let us know. Thanks.

Josh Brown

Director Government Affairs

RioTinto

4700 Daybreak Parkway, South Jordan, Utah 84009

102 Magma Heights

Superior, AZ 85173, United States

T: +1 801.204.2192 M: +1 801.231.2905

Josh.Brown@riotinto.com

www.riotinto.com www.kennecott.com www.resolutioncopper.com

This e-mail is confidential and may also be privileged. If you are not the intended recipient, please notify us immediately and delete this message from your system without first printing or copying it. Any personal data in this e-mail (including any attachments) must be handled in accordance with the Rio Tinto Group Data Protection Policy and all applicable data protection laws.

DOI-18-0543-A-000046

From: Main, Joyce (RTCD)
Sent: Tuesday, June 12, 2018 12:37 PM
To: 'Anderson, Charles (Sky)' <csanderson@usgs.gov>; 'Daniel Flanagan' <dflanagan@usgs.gov>; 'Steven Fortier' <sfortier@usgs.gov>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Subject: RE: [EXTERNAL] Update on your travel agenda for 12th fit testing.
Importance: High

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov> Tue, Jun 12, 2018 at 7:26 PM
To: "Main, Joyce (RTCD)" <Joyce.Main@riotinto.com>
Cc: "Anderson, Charles (Sky)" <csanderson@usgs.gov>, Daniel Flanagan <dflanagan@usgs.gov>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Hi Joyce,

I confirm that I have watched the videos.

regards,

[Quoted text hidden]

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920



Fortier, Steven <sfortier@usgs.gov>

Fwd: [EXTERNAL] VIP Invitation: CABC & MABC Reception June 18th

2 messages

Nassar, Nedal <nnassar@usgs.gov>

Fri, Jun 8, 2018 at 8:07 AM

To: Steve Fortier <sfortier@usgs.gov>, Michael Magyar <mmagyari@usgs.gov>

FYI--

I was invited to this reception by Rio Tinto in connection with the Resources for Future Generations conference. Is it appropriate for me to attend?

Nedal

----- Forwarded message -----

From: **Dickerson, Blair (RTCMI)** <Blair.Dickerson@riotinto.com>

Date: Wed, Jun 6, 2018 at 9:59 AM

Subject: [EXTERNAL] VIP Invitation: CABC & MABC Reception June 18th

To: "Lepsoe, Claire (RTCMI)" <Claire.Lepsoe@riotinto.com>

In connection with Rio Tinto's patron sponsorship of Resources for Future Generations 2018, you are cordially invited to a reception hosted by the Canadian American Business Council and the Mining Association of BC. Please see attached invitation and kindly RSVP at cabc-mabc.eventbrite.ca (password: leadership).

Best regards/Cordialement

Blair Dickerson

Vice President, Canada

Rio Tinto

360 Albert Street. Suite 1020, Ottawa, Ontario K1R 7X7, Canada

T: + 1 613 569 3346 M: + 1 343 540 7934 F: + 1 613 569 6195

blair.dickerson@riotinto.com <http://www.riotinto.com>

VIP Invitation CABC & MABC Reception 18 June.pdf
2322K

Steven Fortier <sfortier@usgs.gov>
To: "Nassar, Nedal" <nnassar@usgs.gov>
Cc: Michael Magyar <mmagyari@usgs.gov>

Mon, Jun 11, 2018 at 6:25 AM

I would check with Nancy Baumgartner.

Sent from my iPhone
[Quoted text hidden]

DOI-18-0543-A-000048

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Fwd: [EXTERNAL] VIP Invitation: CABC & MABC Reception June 18th

<VIP Invitation CABC & MABC Reception 18 June.pdf>



The Canadian American Business Council
together with
the Mining Association of BC
invite you to celebrate
Rio Tinto, the recipient of
CABC's Corporate Leadership Award

Monday 18 June 2018

The Vancouver Club

5:30pm – 7:00pm

The evening will include a conversation with
Rio Tinto's chief executive Aluminium Alf Barrios and
Canadian American Business Council's
chief executive officer Maryscott (Scotty) Greenwood

Cocktails and hors d'oeuvres at 5:30pm
Formal remarks and conversation at 6:00pm

Kindly RSVP by 11 June at
cabc-mabc.eventbrite.ca

password: leadership

RioTinto

DOI-18-0543-A-000050



Fortier, Steven <sfortier@usgs.gov>

Automatic reply: [EXTERNAL] Rio Tinto NDA

1 message

Brown, Josh (RTKC) <Josh.Brown@riotinto.com>
To: "Fortier, Steven" <sfortier@usgs.gov>

Wed, Aug 8, 2018 at 3:57 PM

I will be out of the office from Aug 6, 2018 to Aug 17, 2018. I will be travelling and have limited ability to check emails and calls during my absence. For immediate concern or need please contact Piper Rhodes at 801-204-2780 or email piper.rhodes@riotinto.com

Sincerely,

Josh Brown

Rio Tinto
Director Government Affairs
801-231-2905

**Fortier, Steven <sfortier@usgs.gov>****(no subject)**

2 messages

Steven Fortier <sfortier@usgs.gov>

Thu, Jul 27, 2017 at 9:16 PM

To: Ryan Stanton <Ryan.Stanton@riotinto.com>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, Nedal Nassar <nnassar@usgs.gov>

Hi Ryan,

I think we are set for the meeting at 3 pm tomorrow in Reston. I will be on an airplane so Nedal Nassar will participate in my stead. His office phone is 703-648-7725. Just call when you arrive and he will come to collect you.

Regards, Steve

Sent from my iPhone

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Fri, Jul 28, 2017 at 6:21 AM

To: Steven Fortier <sfortier@usgs.gov>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, Nedal Nassar <nnassar@usgs.gov>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Thanks, Steve.

Nedal - we look forward to seeing you later today.

Best. Ryan

Sent from my iPhone

[Quoted text hidden]



Fortier, Steven <sfortier@usgs.gov>

Fwd: Thanks

1 message

Nedal Nassar <nnassar@usgs.gov>

Thu, Mar 2, 2017 at 6:14 PM

To: Steve Fortier <sfortier@usgs.gov>, Michael Magyar <mmagyari@usgs.gov>, stextoris@usgs.gov, escottsganine@usgs.gov, atolcin@usgs.gov, dflanagan@usgs.gov, csanderson@usgs.gov

A thank you note from Rio Tinto is below; also an invitation to visit their operations...might be something worth considering.

Best,

Nedal

Begin forwarded message:

From: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Date: March 2, 2017 at 11:04:55 AM MST

To: "nnassar@usgs.gov" <nnassar@usgs.gov>

Subject: Thanks

Hi Nedal,

Just wanted to send a quick thank you for hosting us on Monday – we truly enjoyed it and look forward to working with you moving forward. If there is anything we can do for you, please let us know.

Finally – we would love to host you guys out to our Arizona and Utah ops this spring or summer – let me know how I can help!

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625

ryan.stanton@riotinto.com <http://www.riotinto.com>

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Fwd: Thanks



Fortier, Steven <sfortier@usgs.gov>

Letter from USFS

1 message

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Tue, Sep 12, 2017 at 2:46 PM

To: "Murray W. Hitzman (mhitzman@mines.edu)" <mhitzman@mines.edu>, "Fortier, Steven" <sfortier@usgs.gov>

Hi Murray, Steve,

It was great to see you a few weeks ago at the DOI roundtable and I hope this finds you both well.

I wanted to quickly check in to inquire if you have received a letter a from USFS regarding the Resolution Copper project? We were advised that it was sent last week.

Thank you and look forward to speaking again soon.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

**Fortier, Steven <sfortier@usgs.gov>**

Meeting Friday

1 message

Steven Fortier <sfortier@usgs.gov>
To: Ryan Stanton <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Tue, Jul 25, 2017 at 4:01 PM

Hi Ryan,

Left you a voicemail. Trying to set up a meeting Friday afternoon with Murray Hitzman.

Sent from my iPhone



Fortier, Steven <sfortier@usgs.gov>

Meeting on Friday

10 messages

Fortier, Steven <sfortier@usgs.gov>
 To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
 Cc: Daniel McGroarty <dmcg@carmotsg.com>

Tue, Jul 25, 2017 at 6:53 PM

Ryan,

Will come back to you tomorrow re: timing - 3:00 pm may not work, is 4:00 pm a possibility?

--

Steven M. Fortier, Director
 National Minerals Information Center
 U.S. Geological Survey
 988 National Center, Reston, VA 20192
 Phone: 703-648-4920

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
 To: "Fortier, Steven" <sfortier@usgs.gov>
 Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Wed, Jul 26, 2017 at 11:11 AM

Thanks, Steve. Would it help if we could come out to USGS at 3?

If not, might he have availability Friday morning?

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Tuesday, July 25, 2017 6:54 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>
Subject: Meeting on Friday

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>
 To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
 Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Wed, Jul 26, 2017 at 11:15 AM

He is tied up all Friday morning and part of the afternoon. Meeting in Reston would make it easier.
 [Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
 To: "Fortier, Steven" <sfortier@usgs.gov>
 Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Wed, Jul 26, 2017 at 11:18 AM

Great, so would 3pm in Reston work?

DOI-18-0543-A-000057

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Wednesday, July 26, 2017 11:15 AM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>
Subject: Re: Meeting on Friday

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov> Wed, Jul 26, 2017 at 11:26 AM
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Checking.

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov> Wed, Jul 26, 2017 at 1:07 PM
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Friday, 3 pm in Reston will work.

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com> Wed, Jul 26, 2017 at 1:27 PM
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Great – thanks very much, Steve.

Will you be able to join?

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Wednesday, July 26, 2017 1:08 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

[Quoted text hidden]

[Quoted text hidden]

Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com> Wed, Jul 26, 2017 at 1:30 PM
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Great. Thanks very much. Todd

Todd M. Malan

Vice President, External Affairs & Communications - Americas

DOI-18-0543-A-000058

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

T: 202.383.4620 M: 202.714.8187 F: 202.393.0232

Todd.Malan@riotinto.com <http://www.riotinto.com>

From: Stanton, Ryan (RTHQ)
Sent: Wednesday, July 26, 2017 1:28 PM
To: Fortier, Steven
Cc: Daniel McGroarty; Malan, Todd (US Ext Affairs)
Subject: RE: Meeting on Friday

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Wed, Jul 26, 2017 at 1:55 PM

No I will still be out of town. I will have one of my people participate.

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Wed, Jul 26, 2017 at 4:12 PM

Got it – many thanks!

If you need anything in the interim please reach out anytime.

Safe travels.

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Wednesday, July 26, 2017 1:55 PM

[Quoted text hidden]

DOI-18-0543-A-000059

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Meeting on Friday

[Quoted text hidden]



Fortier, Steven <sfortier@usgs.gov>

Re: Rio Tinto call this afternoon

5 messages

Carmot <dmcg@carmotsg.com>
 To: "Fortier, Steven" <sfortier@usgs.gov>
 Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Fri, Jun 23, 2017 at 1:34 PM

Steve,
 Ryan - how about between 2 and 3 pm or 4 or after?
 Best
 Dmcg

Fortier, Steven <sfortier@usgs.gov>
 To: Carmot <dmcg@carmotsg.com>
 Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Fri, Jun 23, 2017 at 1:36 PM

I'm available at 2 pm.

[Quoted text hidden]

--
 Steven M. Fortier, Director
 National Minerals Information Center
 U.S. Geological Survey
 988 National Center, Reston, VA 20192
 Phone: 703-648-4920

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
 To: "Fortier, Steven" <sfortier@usgs.gov>
 Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>

Wed, Jul 5, 2017 at 12:01 PM

Hi Steve,

Hope you had a great 4th of July holiday.

By way of follow-up to our call on June 23, I wanted to quickly reach out to inquire how your discussion progressed with AD Murray and the Leadership team in regards to USGS DC joining the interagency process for Resolution Copper. I have heard some initial outreach has taken place at the state level subsequent to our call, but we would still like to move forward with the Agency joining at the national level, per our discussion.

Here is the list of the cooperating and consulting Agencies on the project: EPA, US Army Corps, BLM, USFWS, ADWR, ADEQ, ASLD, SMI, SHPO, Pinal County, AZ Game and Fish. Also, there are 10 tribes that have agreed to formal consultation.

Look forward to speaking up at your convenience.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625

ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Friday, June 23, 2017 1:37 PM

To: Carmot <dmcg@carmotsg.com>

Cc: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Subject: Re: Rio Tinto call this afternoon

[Quoted text hidden]

Carmot <dmcg@carmotsg.com>
To: Steven Fortier <sfortier@usgs.gov>

Mon, Jul 10, 2017 at 10:44 AM

Steve

Hope you're well. Can you provide an update for Ryan?

Thanks

Dan McG

Sent from my iPhone

Begin forwarded message:

From: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Date: July 5, 2017 at 12:01:32 PM EDT

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>

Subject: RE: Rio Tinto call this afternoon

[Quoted text hidden]

Steven Fortier <sfortier@usgs.gov>
To: Murray Hitzman <mhitzman@usgs.gov>, Lawrence Meinert <lmeinert@usgs.gov>

Mon, Jul 10, 2017 at 11:37 AM

Guys,

DOI-18-0543-A-000062

The continuing Rio Tinto saga. Ryan's email below has the list of cooperating agencies they have mentioned previously. I have not heard anything more from our regional guy at the AZ Water Science Center so don't know if this is progressing. I will maintain my communication with the corporate guys unless instructed otherwise.

Regards,

Sent from my iPhone

Begin forwarded message:

From: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Date: July 5, 2017 at 12:01:32 PM EDT
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>
Subject: RE: Rio Tinto call this afternoon

[Quoted text hidden]



Fortier, Steven <sfortier@usgs.gov>

Rio Tinto / USGS meeting follow-up

1 message

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, May 22, 2017 at 4:52 PM

To: "sfortier@usgs.gov" <sfortier@usgs.gov>

Cc: "Dan (dmcg@carmotsg.com)" <dmcg@carmotsg.com>, "McIntosh, Stephen (G&I)" <Stephen.McIntosh@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Steve,

Thanks for meeting with us this morning – it was great to spend some time with you and the USGS team again.

I did want to follow-up on our initial discussion around USGS and cooperating agency status for our Resolution Copper project in Arizona. Per our discussion, who would you recommend we meet with next? If you would connect us with them or facilitate an introduction that would be much appreciated.

Please let me know if there is anything we can provide on our end.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625

ryan.stanton@riotinto.com <http://www.riotinto.com>



Fortier, Steven <sfortier@usgs.gov>

Rio Tinto call - Weds., June 7

14 messages

Carmot <dmcg@carmotsg.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Fri, Jun 2, 2017 at 11:10 AM

Steve:
Thanks for the call this morning.

Can we speak at a time convenient to you next Weds., June 7?

Best
Dan McGroarty

Fortier, Steven <sfortier@usgs.gov>
To: Carmot <dmcg@carmotsg.com>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Fri, Jun 2, 2017 at 11:12 AM

How about 9 am?
[Quoted text hidden]

--
Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

Daniel McGroarty <dmcg@carmotsg.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Fri, Jun 2, 2017 at 11:25 AM

Great. We will ring you then.

Best

Dan McGroarty

From: "Fortier, Steven" <sfortier@usgs.gov>
Date: Friday, June 2, 2017 at 11:12 AM
To: Carmot <dmcg@carmotsg.com>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>
Subject: Re: Rio Tinto call - Weds., June 7

[Quoted text hidden]

Daniel McGroarty <dmcg@carmotsg.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Tue, Jun 6, 2017 at 4:06 PM

Confirming tomorrow, for our 9 am call

Best

dmcg

From: Daniel McGroarty <dmcg@carmotsg.com>
Date: Friday, June 2, 2017 at 11:25 AM
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>
Subject: Re: Rio Tinto call - Weds., June 7

Great. We will ring you then.

Best

Dan McGroarty

From: "Fortier, Steven" <sfortier@usgs.gov>
Date: Friday, June 2, 2017 at 11:12 AM
To: Carmot <dmcg@carmotsg.com>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>
Subject: Re: Rio Tinto call - Weds., June 7

How about 9 am?

On Fri, Jun 2, 2017 at 11:10 AM, Carmot <dmcg@carmotsg.com> wrote:

Steve:
Thanks for the call this morning.

Can we speak at a time convenient to you next Weds., June 7?
Best
Dan McGroarty

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

Fortier, Steven <sfortier@usgs.gov>
To: Daniel McGroarty <dmcg@carmotsg.com>
Cc: Ryan Stanton <Ryan.Stanton@riotinto.com>

Tue, Jun 6, 2017 at 4:12 PM

10-4
[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Wed, Jun 7, 2017 at 10:52 AM

Steve,

Thanks very much for your time this morning – really appreciate your continued work on this matter. By way of follow-up I wanted to send you the Reuters article mentioned re Sec Ross and Resolution Copper and also an article in today's WSJ on the project you might find interesting:

<http://www.reuters.com/article/us-usa-trade-ross-environment-idUSKBN1852QH>

<https://blogs.wsj.com/cio/2017/06/07/mining-a-mile-down-175-degrees-600-gallons-of-water-a-minute/>

If you should have any additional questions please feel free to reach out any time. I look forward to hearing back from you after your internal discussions.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200

Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Tuesday, June 6, 2017 4:12 PM

DOI-18-0543-A-000067

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Rio Tinto call - Weds., June 7

To: Daniel McGroarty <dmcg@carmotsg.com>
Cc: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

[Quoted text hidden]

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Wed, Jun 7, 2017 at 11:31 AM

Ryan, Dan,

Sure, no problem. I spoke with Murray Hitzman, our Associate Director for Energy and Minerals after our call and he is setting up a meeting for the two of us with the (acting) Deputy Director of USGS to discuss this, hopefully tomorrow. I will brief the acting DD and see if we can get this resolved. I will also advocate for USGS to engage through the critical minerals channel and my Center regardless of the outcome with the Water Mission Area.

Best regards,

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Mon, Jun 12, 2017 at 11:08 AM

Hi Steve,

Hope you had a great weekend. Wanted to follow-up to inquire how the meeting went with your colleagues?

Thank you and please let me know if there is anything additional you might need from us.

Best,

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Wednesday, June 7, 2017 11:31 AM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

[Quoted text hidden]

[Quoted text hidden]

Steven Fortier <sfortier@usgs.gov>
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Tue, Jun 13, 2017 at 9:27 AM

Hi Ryan,

Meeting went well with AD Energy and Minerals, and acting DD USGS. I had a follow up discussion with the AD and the SW Regional Director on Friday. He is circling back with the locals in the Tucson office. Sounds like we may have some communication issues. The cooperating agency issue has certainly been clearly flagged at the Executive Leadership Team of the agency.

I am traveling this week but will keep an ear open for movement on this.

Regards, Steve

Sent from my iPhone

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: Steven Fortier <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Tue, Jun 20, 2017 at 10:51 AM

Steve,

Apologies on the overdue reply – I was traveling last week as well. Thank you for taking this forward and letting us know it has reached the Executive Leadership team – really appreciate it.

Have you heard anything back from the Tucson office since your last note?

Best,

Ryan

From: Steven Fortier [mailto:sfortier@usgs.gov]
Sent: Tuesday, June 13, 2017 9:27 AM

[Quoted text hidden]

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
<https://mail.google.com/mail/u/0/?ik=52bce5bd2a&view=pt&search=all&permthid=thread-f%3A1569106149987891403&simpl=msg-f%3A15691061499...>

Tue, Jun 20, 2017 at 11:35 AM

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Rio Tinto call - Weds., June 7

Cc: Daniel McGroarty <dmcg@carmotsg.com>

Hi Guys,

I spoke with the Arizona Water Science Center Director yesterday. He will be reaching out to his contact at NFS (she is new in the role, apparently), and through her to the RT folks she is dealing with. We will then circle back with you to close the loop.

Regards,

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>

Tue, Jun 20, 2017 at 12:17 PM

Thanks, Steve. Are you around to chat today – would be great to catch up on phone at your convenience.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Tuesday, June 20, 2017 11:35 AM

[Quoted text hidden]

[Quoted text hidden]

Steven Fortier <sfortier@usgs.gov>
To: Nedal Nassar <nnassar@usgs.gov>
Cc: Murray Hitzman <mhitzman@usgs.gov>

Thu, Jul 27, 2017 at 3:06 PM

FYI background on Rio Tinto discussion.

Murray, I have asked Nedal to represent us at the meeting tomorrow. He will collect our visitors and bring them to the NMIC conference room for the 3:00 pm meeting. You reach me on my mobile if you have any concerns.

(b) (6)

Regards

Sent from my iPhone

DOI-18-0543-A-000070

Begin forwarded message:

From: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Date: June 20, 2017 at 9:17:08 AM PDT
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: Daniel McGroarty <dmcg@carmotsg.com>
Subject: RE: Rio Tinto call - Weds., June 7

[Quoted text hidden]

Hitzman, Murray <mhitzman@usgs.gov>
To: Steven Fortier <sfortier@usgs.gov>
Cc: Nedal Nassar <nnassar@usgs.gov>

Thu, Jul 27, 2017 at 3:34 PM

thanks Steve

[Quoted text hidden]

--

Murray W. Hitzman
U. S. Geological Survey
Associate Director - Energy and Minerals
12201 Sunrise Valley Dr., MS 102
Reston, VA. 20192
703-648-4576



Fortier, Steven <sfortier@usgs.gov>

Rio Tinto Follow-up

1 message

Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>

Wed, Aug 2, 2017 at 5:30 PM

To: "mhitzman@usgs.gov" <mhitzman@usgs.gov>

Cc: "nnassar@usgs.gov" <nnassar@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Fortier, Steven (sfortier@usgs.gov)" <sfortier@usgs.gov>

Murray/Nedal/Steve: Many thanks for meeting with us last Friday. Great conversation and keen to work on the follow-up. We are talking to the US Forest Service in regard to getting a formal letter to Acting Director Werkheiser to request that the USGS join the interagency review process as a cooperating agency to contribute the full range of USGS perspective and expertise to the USFS review. As discussed, the USGS would be highly valued as a "contributor of special expertise," particularly in the mineral and geological areas. The Council on Environmental Quality (CEQ) definition for a cooperating agency under NEPA is "**any agency that has jurisdiction by law OR special expertise.**" Pretty clear you and your colleagues fit the special expertise threshold. We will touch base with Congressional and other Administration contacts who have expressed an interest in making sure that the review process has expert mineral and geological expertise at the table.

On the President's defense industrial base EO, let's stay close on how we can be helpful. I am following up with Alex Gray and will suggest that RT Kennecott would be a great backdrop.

Finally, wanted to make sure you had seen our CEO's oped from earlier this year regarding how US domestic mineral and metal resources can help with the President's push on manufacturing (and defense industrial base).

<http://www.foxbusiness.com/politics/2017/03/09/metals-and-mining-matter-trumps-infrastructure-and-manufacturing-push-depend-on-it-opinion.html>

Call if any other issues to discuss. Best, Todd

Todd M. Malan

Vice President, External Affairs & Communications - Americas

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

T: 202.383.4620 M: 202.714.8187 F: 202.393.0232

Todd.Malan@riotinto.com <http://www.riotinto.com>

DOI-18-0543-A-000072

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The article is available on the Wall Street Journal website here:
<https://blogs.wsj.com/cio/2017/06/07/mining-a-mile-down-175-degrees-600-gallons-of-water-a-minute/>

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<https://blogs.wsj.com/cio/2017/06/07/mining-a-mile-down-175-degrees-600-gallons-of-water-a-minute/>

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Due to copyright restrictions, we are unable to distribute the article.
The article is available on the Wall Street Journal website here:
<https://blogs.wsj.com/cio/2017/06/07/mining-a-mile-down-175-degrees-600-gallons-of-water-a-minute/>

Cornell Law School



CFR > Title 40 > Chapter V > Part 1501 > Section 1501.6

40 CFR 1501.6 - Cooperating agencies.

§ 1501.6 Cooperating agencies.

The purpose of this section is to emphasize agency cooperation early in the NEPA process. Upon request of the lead agency, any other Federal agency which has jurisdiction by law shall be a cooperating agency. In addition any other Federal agency which has special expertise with respect to any environmental issue, which should be addressed in the statement may be a cooperating agency upon request of the lead agency. An agency may request the lead agency to designate it a cooperating agency.

(a) The lead agency shall:

- (1)** Request the participation of each cooperating agency in the NEPA process at the earliest possible time.
- (2)** Use the environmental analysis and proposals of cooperating agencies with jurisdiction by law or special expertise, to the maximum extent possible consistent with its responsibility as lead agency.
- (3)** Meet with a cooperating agency at the latter's request.

(b) Each cooperating agency shall:

- (1)** Participate in the NEPA process at the earliest possible time.
- (2)** Participate in the scoping process (described below in § 1501.7).
- (3)** Assume on request of the lead agency responsibility for developing information and preparing environmental analyses including portions of the environmental impact statement concerning which the cooperating agency has special expertise.
- (4)** Make available staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- (5)** Normally use its own funds. The lead agency shall, to the extent available funds permit, fund those major activities or analyses it requests from cooperating agencies. Potential lead agencies shall include such funding requirements in their budget requests.

(c) A cooperating agency may in response to a lead agency's request for assistance in preparing the environmental impact statement (described in paragraph (b)(3), (4), or (5) of this section) reply that other program commitments preclude any involvement or the degree of involvement requested in the action that is the subject of the environmental impact statement. A copy of this reply shall be submitted to the Council.

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Fortier, Steven <sfortier@usgs.gov>

Rio Tinto Visit to the USGS on Monday

7 messages

Steward, Nigel (RTKC) <nigel.steward@riotinto.com>

Thu, Mar 2, 2017 at 12:52 PM

To: "sfortier@usgs.gov" <sfortier@usgs.gov>, "mmagyari@usgs.gov" <mmagyari@usgs.gov>

Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>

Dear Michael and Steven,

Thank you again for the opportunity to meet with you and the USGS team this week. As discussed, we have found your annual commodity report to be very well done and instrumental in driving the important narrative around import dependency and the implications for domestic supply and security. We truly appreciate your perspective on issues of mutual interest – particularly our work on critical minerals.

Furthermore, I wanted to follow-up to see if you or your colleagues had any feedback from your Tucson office regarding their participation as a cooperating agency in the Resolution Copper NEPA permitting process (invited by USFS).

Lastly – we would love to host you and the team out to our Kennecott (Utah) and Resolution (Arizona) sites this year. Please let us know how we can help facilitate that visit.

Kind regards,

Nigel

Fortier, Steven <sfortier@usgs.gov>

Thu, Mar 2, 2017 at 12:58 PM

To: "Steward, Nigel (RTKC)" <nigel.steward@riotinto.com>

Cc: "mmagyari@usgs.gov" <mmagyari@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>

Hi Nigel,

We were happy to host you and your team and look forward to further interaction. I raised the Resolution Copper issue with our Deputy Associate Director later the same day and he promised to raise the issue within agency leadership.

Best regards,

[Quoted text hidden]

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

DOI-18-0543-A-000079

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Rio Tinto Visit to the USGS on Monday

Steward, Nigel (RTKC) <nigel.steward@riotinto.com>

Thu, Mar 2, 2017 at 1:01 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "mmagyari@usgs.gov" <mmagyari@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>

Steven,

Many thanks for the quick reply and follow up on Resolution. It is greatly appreciated.

I look forward to catching up with you and your colleagues again soon.

Best Regards

Nigel

From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Thursday, March 2, 2017 10:58 AM

To: Steward, Nigel (RTKC) <nigel.steward@riotinto.com>

Cc: mmagyari@usgs.gov; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Lye, Andrew (RC) <Andrew.Lye@riotinto.com>; Cameron, Marc (RTKC) <Marc.Cameron@riotinto.com>

Subject: Re: Rio Tinto Visit to the USGS on Monday

[Quoted text hidden]

Brown, Josh (RTKC) <Josh.Brown@riotinto.com>

Thu, Mar 2, 2017 at 1:05 PM

To: "Steward, Nigel (RTKC)" <nigel.steward@riotinto.com>, "Fortier, Steven" <sfortier@usgs.gov>

Cc: "mmagyari@usgs.gov" <mmagyari@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>

Steven,

Echoing Dr. Steward's comments, thanks for all the great work you do and taking the time to meet with Rio Tinto. In regards to a site visit at Resolution or Kennecott, please reach out to me as your team looks to take us up on the offer. I will coordinate the visits and can work to tailor site visits to your requests.

Sincerely,

Josh Brown

Government Affairs



4700 Daybreak Parkway, South Jordan, Utah 84009

T: (801) 204-2192 M: (801) 231-2905 F: (801) 204-2888

josh.brown@riotinto.com www.riotinto.com www.kennecott.com

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From: Steward, Nigel (RTKC)

Sent: Thursday, March 2, 2017 11:01 AM

To: Fortier, Steven <sfortier@usgs.gov>

Cc: mmagyar@usgs.gov; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Lye, Andrew (RC) <Andrew.Lye@riotinto.com>; Cameron, Marc (RTKC) <Marc.Cameron@riotinto.com>

Subject: RE: Rio Tinto Visit to the USGS on Monday

[Quoted text hidden]

Steward, Nigel (RTKC) <nigel.steward@riotinto.com>

Wed, Mar 29, 2017 at 12:56 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "mmagyar@usgs.gov" <mmagyar@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>, "Peacey, Victoria (RC)" <Victoria.Peacey@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Dear Steven,

I hope this email finds you well. As you might have seen, I highlighted the USGS' commodities report in my testimony in front of the House Natural Resources Committee last week – it continues to be a great resource for us and Congressional allies.

Separately, I wanted to follow-up on your note below to see if there was any feedback from your team or the Deputy Associate Director? I am just returning to Salt Lake City from a visit to Arizona and was reminded that the Forest Service welcomes a role for the USGS as a cooperating agency with respect to the Resolution Copper EIS. It would be highly desirable for all the US government agencies to work in concert as it would lead to a more efficient and effective process and ensure that the valuable views and contributions of the USGS are heard so that we can secure the best project outcome for Resolution. Our hope is that your team in Arizona will work collaboratively within the interagency process.

As highlighted in the House hearing last week and a Senate Energy hearing earlier today in which your colleague Dr. Murray Hitzman participated, Resolution Copper is a project of national significance that has the ability to provide the US with 25% of its copper demand.

Thank you very much for your help on this matter and look forward to hearing back from you.

Kind regards,

DOI-18-0543-A-000081

Nigel

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Thursday, March 2, 2017 10:58 AM
To: Steward, Nigel (RTKC) <nigel.steward@riotinto.com>
Cc: mmagyar@usgs.gov; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Lye, Andrew (RC) <Andrew.Lye@riotinto.com>; Cameron, Marc (RTKC) <Marc.Cameron@riotinto.com>
Subject: Re: Rio Tinto Visit to the USGS on Monday

Hi Nigel,

[Quoted text hidden]
[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov> Wed, Mar 29, 2017 at 1:25 PM
To: "Steward, Nigel (RTKC)" <nigel.steward@riotinto.com>
Cc: "mmagyar@usgs.gov" <mmagyar@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>, "Peacey, Victoria (RC)" <Victoria.Peacey@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Hi Nigel,

I have not heard anything back with respect to the Resolution issue. I will make another inquiry.

Regards,

[Quoted text hidden]

Steward, Nigel (RTKC) <nigel.steward@riotinto.com> Wed, Mar 29, 2017 at 1:49 PM
To: "Fortier, Steven" <sfortier@usgs.gov>
Cc: "mmagyar@usgs.gov" <mmagyar@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Lye, Andrew (RC)" <Andrew.Lye@riotinto.com>, "Cameron, Marc (RTKC)" <Marc.Cameron@riotinto.com>, "Peacey, Victoria (RC)" <Victoria.Peacey@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Steve,

Many thanks for your support.

I look forward to hearing from you soon

Best Regards

From: Fortier, Steven [mailto:sfortier@usgs.gov]

Sent: Wednesday, March 29, 2017 11:26 AM

To: Steward, Nigel (RTKC) <nigel.steward@riotinto.com>

Cc: mmagyar@usgs.gov; Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Lye, Andrew (RC) <Andrew.Lye@riotinto.com>; Cameron, Marc (RTKC) <Marc.Cameron@riotinto.com>; Peacey, Victoria (RC) <Victoria.Peacey@riotinto.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>

[Quoted text hidden]

[Quoted text hidden]



Fortier, Steven <sfortier@usgs.gov>

Some links

3 messages

Fortier, Steven <sfortier@usgs.gov>

Thu, Mar 8, 2018 at 4:36 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, stephen.mcintosh@riotinto.com

Guys,

Some links to things we discussed yesterday and one of our most recent products:

Soil geochemistry:

<https://www.sciencedirect.com/science/article/pii/S0375674215000151?via%3Dihub>

Murray Hitzman:

<http://www.techcentral.ie/world-leading-economic-geologist-announced-sfi-research-professor/>

The "Seal Deal" from our Center:

<https://pubs.er.usgs.gov/publication/gip183>

Regards,

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

McIntosh, Stephen (G&I) <Stephen.McIntosh@riotinto.com>

Sat, Mar 10, 2018 at 6:02 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Dear Steve,

Many thanks for sending these links through. It was good to meet with you again earlier in the week.

I hope the appointment of the new director goes to plan.

Best regards,

Steve

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Thursday, 8 March 2018 2:36 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; McIntosh, Stephen (G&I) <Stephen.McIntosh@riotinto.com>
Subject: Some links

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Wed, Mar 14, 2018 at 10:58 PM

To: "Fortier, Steven" <sfortier@usgs.gov>, "McIntosh, Stephen (G&I)" <Stephen.McIntosh@riotinto.com>

Thanks, Steve.

Really appreciate your and the team's time last week – look forward to staying in touch on all of this.

Best,

Ryan

From: Fortier, Steven [mailto:sfortier@usgs.gov]
Sent: Thursday, March 8, 2018 4:36 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; McIntosh, Stephen (G&I) <Stephen.McIntosh@riotinto.com>
Subject: Some links

Guys,

[Quoted text hidden]



Fortier, Steven <sfortier@usgs.gov>

Update

13 messages

Steven Fortier <sfortier@usgs.gov>

To: Ryan.Stanton@riotinto.com, Daniel McGroarty <dmcg@carmotsg.com>

Mon, Jul 10, 2017 at 11:43 AM

Hi Guys,

I passed along the info on cooperating agencies to USGS senior management, thanks for that. I've heard nothing back from our regional guys who were to work back through their local FWS contacts and loop back with you guys.

(b) (6)

and will ping the

water guys for an update.

Regards, Steve

Sent from my iPhone

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Tue, Jul 11, 2017 at 12:31 PM

To: Steven Fortier <sfortier@usgs.gov>, Daniel McGroarty <dmcg@carmotsg.com>

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood, Sam (US Ext Affairs)"

<Sam.Greenwood@riotinto.com>

Steve,

Thanks very much for getting back to us -- (b) (6), no less.

I happen to have Arnaud Soirat, Group Executive for Rio Tinto Copper & Diamonds in DC on July 28 and I was hoping we might be able to set a meeting for him with you, AD Murray and Director Werkheiser? We'd really appreciate the opportunity to speak to you and the leadership team in person, if their schedules will allow.

By way of background, Arnaud oversees Resolution Copper and Kennecott in SLC. His bio is here:
<http://www.riotinto.com/aboutus/arnaud-soirat-17621.aspx>

Thanks and look forward to hearing back from you. (b) (6) !

Ryan

Ryan Stanton
 Director - US Government Affairs & Communications

Rio Tinto
 900 G Street NW, Suite 200
 Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

[Quoted text hidden]

Steven Fortier <sfortier@usgs.gov>

Tue, Jul 11, 2017 at 4:46 PM

To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood, Sam (US Ext Affairs)" <Sam.Greenwood@riotinto.com>

DOI-18-0543-A-000086

I will check with Murray to see if he is available.

Regards.

Sent from my iPhone

[Quoted text hidden]

Daniel McGroarty <dmcg@carmotsg.com>

Wed, Jul 12, 2017 at 6:35 AM

To: Steven Fortier <sfortier@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood, Sam (US Ext Affairs)"

<Sam.Greenwood@riotinto.com>

Thanks, Steve

Best

dmcg

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Wed, Jul 12, 2017 at 5:26 PM

To: Steven Fortier <sfortier@usgs.gov>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood,

Sam (US Ext Affairs)" <Sam.Greenwood@riotinto.com>

Thanks very much, Steve.

Sent from my iPhone

[Quoted text hidden]

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Mon, Jul 24, 2017 at 2:10 PM

To: Steven Fortier <sfortier@usgs.gov>

Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood, Sam (US Ext Affairs)"

<Sam.Greenwood@riotinto.com>, Daniel McGroarty <dmcg@carmotsg.com>

Hi Steve,

Hope this finds you well. Wanted to circle back with you on this to see if a meeting might be possible when Arnaud is in DC later this week?

Thanks very much.

Ryan

-----Original Message-----

From: Stanton, Ryan (RTHQ)

Sent: Tuesday, July 11, 2017 12:32 PM

To: 'Steven Fortier' <sfortier@usgs.gov>; Daniel McGroarty <dmcg@carmotsg.com>

Cc: Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>; Greenwood, Sam (US Ext Affairs)

<Sam.Greenwood@riotinto.com>

Subject: RE: Update

Steve,

Thanks very much for getting back to us -- (b) (6) , no less.

I happen to have Arnaud Soirat, Group Executive for Rio Tinto Copper & Diamonds in DC on July 28 and I was hoping we might be able to set a meeting for him with you, AD Murray and Director Werkheiser? We'd really appreciate the opportunity to speak to you and the leadership team in person, if their schedules will allow.

By way of background, Arnaud oversees Resolution Copper and Kennecott in SLC. His bio is here:

<http://www.riotinto.com/aboutus/arnaud-soirat-17621.aspx>

Thanks and look forward to hearing back from you. (b) (6) !

DOI-18-0543-A-000087

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625 ryan.stanton@riotinto.com <http://www.riotinto.com>

-----Original Message-----

From: Steven Fortier [mailto:sfortier@usgs.gov]
Sent: Monday, July 10, 2017 11:44 AM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Daniel McGroarty <dmcg@carmotsg.com>
Subject: Update

[Quoted text hidden]

Steven Fortier <sfortier@usgs.gov>
To: Murray Hitzman <mhitzman@usgs.gov>
Cc: Lawrence Meinert <lmeinert@usgs.gov>, hmengestu@usgs.gov

Mon, Jul 24, 2017 at 9:16 PM

Murray,

This is the note from Ryan Stanton, Rio Tinto Government affairs guy re: their Sr. Executive who will be in town Friday. My current schedule does not have me back in Reston on Friday but if this gets scheduled and you want me there I will get myself back there.

Regards.

Sent from my iPhone

Begin forwarded message:

From: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>
Date: July 24, 2017 at 11:10:27 AM PDT
To: Steven Fortier <sfortier@usgs.gov>
Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Greenwood, Sam (US Ext Affairs)" <Sam.Greenwood@riotinto.com>, Daniel McGroarty <dmcg@carmotsg.com>
Subject: RE: Update

[Quoted text hidden]

Mengestu, Hirut <hmengestu@usgs.gov>
To: Steven Fortier <sfortier@usgs.gov>
Cc: Murray Hitzman <mhitzman@usgs.gov>, Lawrence Meinert <lmeinert@usgs.gov>

Tue, Jul 25, 2017 at 2:21 PM

Hi Steve,
If Friday is the only option Murray may have to miss the ADs meeting that was scheduled for the morning hours or if it is going to be in the afternoon we can reschedule his afternoon meetings to accommodate the request. Is he coming to USGS in Reston or will this be in DC?

Thanks,
Hirut

Hirut S. Mengestu
Executive Assistant
Office of the Associate Director for Energy and Minerals,
Office of the Associate Director for Environmental Health - USGS

DOI-18-0543-A-000088

9/21/2018

DEPARTMENT OF THE INTERIOR Mail - Update

12201 Sunrise Valley Drive, MS 102, Reston, VA 20192
Phone: 703-648-7419, Fax: 703-648-7031

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>

Tue, Jul 25, 2017 at 2:26 PM

To: "Mengestu, Hirut" <hmengestu@usgs.gov>

Cc: Murray Hitzman <mhitzman@usgs.gov>, Lawrence Meinert <lmeinert@usgs.gov>

Don't have any details yet. Certainly don't want him to miss the ADs meeting so will circle back with Rio Tinto to get something in the afternoon. Downtown might be a better option but I will check.

[Quoted text hidden]

--

Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

Murray Hitzman <mhitzman@usgs.gov>

Tue, Jul 25, 2017 at 2:49 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Cc: "Mengestu, Hirut" <hmengestu@usgs.gov>, Lawrence Meinert <lmeinert@usgs.gov>

I should be at ads meeting. If it could be scheduled downtown late in day it might work?

Sent from my iPhone

[Quoted text hidden]

Murray Hitzman <mhitzman@usgs.gov>

Tue, Jul 25, 2017 at 2:51 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Don't want to miss meeting w bill. Any chance moving it to 1pm? Or late afternoon mtg downtown

Sent from my iPhone

On Jul 25, 2017, at 11:26 AM, Fortier, Steven <sfortier@usgs.gov> wrote:

[Quoted text hidden]

Fortier, Steven <sfortier@usgs.gov>

Tue, Jul 25, 2017 at 4:13 PM

To: Hirut S Mengestu <hmengestu@usgs.gov>

I think this was for you.

[Quoted text hidden]

hmengestu@usgs.gov <hmengestu@usgs.gov>

Tue, Jul 25, 2017 at 6:01 PM

To: "Fortier, Steven" <sfortier@usgs.gov>

Yes, it was meant for me. Murray doesn't want to miss the ADs meeting and he also doesn't want to miss the meeting with Bill Werkheiser. The meeting with Bill was scheduled for 2:00 pm. So, I will try to move the meeting with Bill to 1:00 pm (if Bill is available) and we can schedule the meeting in DC around 3:00 pm. If that doesn't work, then the meeting in DC has to be around 4:00 or 4:30 pm.

I will let you know tomorrow what will be the best time for the Friday meeting.

Thanks,

Hirut

Sent from my iPad

[Quoted text hidden]

DOI-18-0543-A-000089



Fortier, Steven <sfortier@usgs.gov>

USGS/ Rio Tinto Meeting Follow-up

1 message

Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>

Mon, Jun 5, 2017 at 10:15 AM

To: "sfortier@usgs.gov" <sfortier@usgs.gov>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, Daniel McGroarty <dmcg@carmotsg.com>, "Greenwood, Sam (US Ext Affairs)" <Sam.Greenwood@riotinto.com>

Host: 1-855-244-8681,73495058#,2565**Attendees:** 1-855-244-8681,73188802#,**Dial in manually**

Call in Toll Free US/ Canada: 1-855-244-8681

Attendee access code: 73188802

Host access code: 73495058

PIN: 2565

Notes from Conference Call with Rio Tinto

Participants: Ryan Stanton (Rio Tinto – government and communications); Dan McGroarty (Carmot Strategic Group); Todd Malan (Rio Tinto – external affairs); Sam Greenwood (Rio Tinto)

Topic: Resolution Copper Project

Resolution is the largest, currently proposed investment in the mining industry in the U.S. (\$6-\$8 billion). Potential to supply 25% of U.S. domestic copper consumption.

Joint venture between Rio Tinto and BHP Billiton, the two largest mining companies in the world (by market capitalization).

- Project is in the environmental impact statement part of the permitting process.
- U.S. Forest Service is the Lead Agency.
- There are a total of 11 cooperating agencies.
- USFS has requested that USGS agree to be a cooperating agency through regional contacts in Tucson.
- USGS Tucson office has declined to participate.
- Issue appears to be that USGS wants to be paid as a contractor by USFS to do the hydrological work.
- USFS seems to be of the opinion that they can get this work done better and faster by using contractors from the private sector.
- Rio Tinto has an agreed timeline with USFS that they are happy with but are concerned that without USGS on board that it could result in delays down the line.
- There is a critical mineral angle to this project which Rio Tinto is working on with the Critical Materials Institute and Colorado School of Mines.
- USGS Minerals Resource Program could provide very useful input to the process on the critical minerals issue if we were engaged as a cooperating agency.

My sense of this is USGS is being perceived in a very negative light in this matter and that if we don't resolve this from the bottom up that it will get resolved from the top down.



Fortier, Steven <sfortier@usgs.gov>

Fwd: [EXTERNAL] Re: Kennecott site visit

8 messages

Flanagan, Daniel <dflanagan@usgs.gov>
To: "Fortier, Steven" <sfortier@usgs.gov>

Tue, May 1, 2018 at 8:21 AM

----- Forwarded message -----

From: **Stanton, Ryan (RTHQ)** <Ryan.Stanton@riotinto.com>
Date: Thu, Apr 26, 2018 at 11:37 PM
Subject: RE: [EXTERNAL] Re: Kennecott site visit
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>, "Flanagan, Daniel" <dflanagan@usgs.gov>
Cc: "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>, "Rhodes, Piper (RTKC)" <Piper.Rhodes@riotinto.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Charles, Daniel,

Following up here with some of my RTK colleagues looped in. We are confirmed for a 2-day visit on 30-31 May (Wed/Thur) – you could arrive Tuesday night and depart late Thursday/early Friday. In addition to a full tour we'd also propose a roundtable discussion with some of our senior leaders, including our environmental and exploration teams. We envision a two-way dialogue on priorities and how we can collaborate together. Does that sound good? If so, we'll have a detailed agenda coming to you soon.

Separately, we wanted to extend the invitation to incoming USGS Director Reilly and Steve Fortier. I know they have hectic schedules but wanted to offer to host them as part of this visit if they can make it.

Would you both be available for a call in the next week or two to finalize plans?

Thanks and we're looking forward to hosting you.

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001
M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

Anderson, Charles (Sky) <csanderson@usgs.gov>
To: Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Wed, May 23, 2018 at 12:35 PM

The tentative schedule for Kennecott.

Sky

----- Forwarded message -----

From: **Stanton, Ryan (RTHQ)** <Ryan.Stanton@riotinto.com>
Date: Wed, May 23, 2018 at 9:43 AM
Subject: RE: [EXTERNAL] Re: Kennecott site visit
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc: "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Hey Sky – we're working on the agenda this week but should have it to you shortly. To confirm it will be you, Daniel and Steve Fortier joining?

We're thinking of kicking off the 13th with a roundtable with members of Kennecott ops, Exploration team, and Enviro teams to discuss industry issues and how we can continue to work with USGS to support mutual goals. That sound good?

From there we will do the full mine and ops tour over the next day and a half.

Best,

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

DOI-18-0543-A-000094

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

Anderson, Charles (Sky) <csanderson@usgs.gov>
To: Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Thu, May 24, 2018 at 8:51 AM

2 things needed.

- 1) shoe and shirt sizes for PPE
- 2) a respirator test they can do on site. We can do them here, but it will cost around \$40 -\$60 and take 30 mins per test.
Plus you have to be clean shaven, [REDACTED] (b) (6).

Sky.

----- Forwarded message -----

From: **Brown, Josh (RTKC)** <Josh.Brown@riotinto.com>
Date: Wed, May 23, 2018 at 4:50 PM
Subject: RE: [EXTERNAL] Re: Kennecott site visit
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc: "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Rhodes, Piper (RTKC)" <Piper.Rhodes@riotinto.com>, "Forsyth, Bill (RTCP)" <Bill.Forsyth@riotinto.com>

Sky,

Look forward to having you join us and getting to see Rio Tinto Kennecott first hand. I have spoken with our operational teams and they have some recommendations on ways to best streamline the pre-work and safety preparation.

As we will be at the Smelter and Refinery there are locations where personal half face respirators are required. To wear a respirator one needs to be tested and fitted for use. This includes a pulmonary test to assure one has the lung capacity to wear a respirator and a fit test to make sure the respirator fits appropriately and serves the purpose of preventing ambient atmosphere from entering the lungs. You can be tested at an occupational health facility or an industrial health facility in virtually all major cities or we can prepare appointments here in Salt Lake City once you arrive. Each test lasts roughly 15-25 minutes and cost range \$40-60 (I will verify here in Salt Lake). If you choose to undertake a test near your home/work we recommend having them test you on a 3M half face respirator. 3M is very common respirator and all should have this style/type. If you are able to be tested locally with a 3M half face respirator we will have loaners available for you to use at site. If you choose or have to be tested with another respirator type you will need to purchase a respirator and purchase dual cartridge for dust (purple in color) and yellow (chemical). They sell purple/yellow combo cartridges. They run roughly around \$40 for mask and canisters.

If you desire being tested while in Salt Lake City, we will set up an appointment for you to be tested and will escort you to facility. We will need the first and last names of all participating on the tour to set the appointment.

Process will be the same as discussed above.

Secondly, if you can please send us the shoe sizes for each of you, we will prepare your PPE (personal protective equipment) for the tour?

Thanks and please contact me if you have any questions.

Also found out that North brand half face respirators are also available on site. If you get fit tested before, please let us know the size of respirator for each of you and we can have them ready before hand.

Josh Brown
Director Government Affairs
RioTinto
4700 Daybreak Parkway, South Jordan, Utah 84009

102 Magma Heights
Superior, AZ 85173, United States

T: +1 801.204.2192 M: +1 801.231.2905

Josh.Brown@riotinto.com

www.riotinto.com www.kennecott.com www.resolutioncopper.com

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Fortier, Steven <sfortier@usgs.gov>
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc: Daniel Flanagan <dflanagan@usgs.gov>

Thu, May 24, 2018 at 9:36 AM

Shoes ^(b) [redacted], shirt (b) (6) Have them schedule us for respirator tests out there.
[Quoted text hidden]

--
Steven M. Fortier, Director
National Minerals Information Center
U.S. Geological Survey
988 National Center, Reston, VA 20192
Phone: 703-648-4920

DOI-18-0543-A-000096

Anderson, Charles (Sky) <csanderson@usgs.gov>
To: "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>
Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Thu, May 31, 2018 at 8:18 AM

Josh,

Could we get the respirator test scheduled for the afternoon of the 12th?

Sky

On Fri, May 25, 2018 at 2:39 PM, Brown, Josh (RTKC) <Josh.Brown@riotinto.com> wrote:

Sky,

As we prepare for lunch, wanted to check if you or team have any dietary restrictions or concerns. If so let us know. Thanks and have a great weekend.

Josh Brown
Director Government Affairs
RioTinto
[4700 Daybreak Parkway, South Jordan, Utah 84009](http://www.riotinto.com)

[102 Magma Heights](http://www.riotinto.com)
Superior, AZ 85173, United States

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Josh.Brown@riotinto.com

www.riotinto.com www.kennecott.com www.resolutioncopper.com

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From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Thursday, May 24, 2018 1:44 PM
To: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>

Subject: Re: [EXTERNAL] Re: Kennecott site visit

Steve: Shoes: (b), Shirt, (b) (6)

Danny: Shoes: (b), Shirt (b) (6)

DOI-18-0543-A-000097

Sky: Shoes (b) (6), Shirt, (b) (6)

And we would like to do the respirator training and testing out there.

Sky

On Wed, May 23, 2018 at 7:18 PM, Brown, Josh (RTKC) <Josh.Brown@riotinto.com> wrote:

Sky,

Also found out that North brand half face respirators are also available on site. If you get fit tested before, please let us know the size of respirator for each of you and we can have them ready before hand.

Josh Brown
Director Government Affairs
RioTinto
[4700 Daybreak Parkway, South Jordan, Utah 84009](http://www.riotinto.com)

[102 Magma Heights](http://www.riotinto.com)
[Superior, AZ 85173, United States](http://www.riotinto.com)

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Josh.Brown@riotinto.com

www.riotinto.com www.kennecott.com www.resolutioncopper.com

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From: Brown, Josh (RTKC)
Sent: Wednesday, May 23, 2018 2:51 PM
To: Stanton, Ryan (RTHQ) Ryan.Stanton@riotinto.com; Anderson, Charles (Sky) c.anderson@uogov.ca
Cc: Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>; Rhodes, Piper (RTKC) Piper.Rhode@riotinto.com; Forsyth, Bill (RTCP) Bill.Forsyth@riotinto.com
Subject: RE: [EXTERNAL] Re: Kennecott site visit

Look forward to having you join us and getting to see Rio Tinto Kennecott first hand. I have spoken with our operational teams and they have some recommendations on ways to best streamline the pre-work and safety preparation.

As we will be at the Smelter and Refinery there are locations where personal half face respirators are required. To wear a respirator one needs to be tested and fitted for use. This includes a pulmonary test to assure one has the lung capacity to wear a respirator and a fit test to make sure the respirator fits appropriately and serves the purpose of preventing ambient atmosphere from entering the lungs. You can be tested at an occupational health facility or an industrial health facility in virtually all major cities or we can prepare appointments here in Salt Lake City once you arrive. Each test lasts roughly 15-25 minutes and cost range \$40-60 (I will verify here in Salt Lake). If you choose to undertake a test near your home/work we recommend having them test you on a 3M half face respirator. 3M is very common respirator and all should have this style/type. If you are able to be tested locally with a 3M half face respirator we will have loaners available for you to use at site. If you choose or have to be tested with another respirator type you will need to purchase a respirator and purchase dual cartridge for dust (purple in color) and yellow (chemical). They sell purple/yellow combo cartridges. They run roughly around \$40 for mask and canisters.

If you desire being tested while in Salt Lake City, we will set up an appointment for you to be tested and will escort you to facility. We will need the first and last names of all participating on the tour to set the appointment.

Process will be the same as discussed above.

Please let me know what your thoughts are regarding the respirator test.

Secondly, if you can please send us the shoe sizes for each of you, we will prepare your PPE (personal protective equipment) for the tour?

Thanks and please contact me if you have any questions.

Josh Brown

Director Government Affairs

RioTinto

4700 Daybreak Parkway, South Jordan, Utah 84009

102 Magma Heights

Superior, AZ 85173, United States

T: +1 801.204.2192 M: +1 801.231.2905

DOI-18-0543-A-000099

Josh.Brown@riotinto.com

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From: Stanton, Ryan (RTHQ)
Sent: Wednesday, May 23, 2018 12:10 PM
To: Anderson, Charles (Sky) <csanderson@usgs.gov>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>
Subject: RE: [EXTERNAL] Re: Kennecott site visit

Great – my colleague Josh (cc'd) can advise more on this but he recommends getting respirator fit test prior to coming out to save time, if possible. You'll also need to be clean shaven if that's an issue.

Please send shirt and shoe size for site PPE when most convenient.

Thanks,

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Anderson, Charles (Sky) [<mailto:mailto:csanderson@usgs.gov>]
Sent: Wednesday, May 23, 2018 12:34 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>
Subject: Re: [EXTERNAL] Re: Kennecott site visit

DOI-18-0543-A-000100

I can confirm it will be all three of us. And the agenda looks good to me, and I'll share it with Danny and Steve. We are finalizing the flights, and should be done sometime tomorrow.

Sky

On Wed, May 23, 2018 at 9:43 AM, Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com> wrote:

Hey Sky – we're working on the agenda this week but should have it to you shortly. To confirm it will be you, Daniel and Steve Fortier joining?

We're thinking of kicking off the 13th with a roundtable with members of Kennecott ops, Exploration team, and Enviro teams to discuss industry issues and how we can continue to work with USGS to support mutual goals. That sound good?

From there we will do the full mine and ops tour over the next day and a half.

Best,

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>

From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Wednesday, May 23, 2018 7:49 AM

To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>
Subject: Re: [EXTERNAL] Re: Kennecott site visit

Fantastic!

DOI-18-0543-A-000101

We are getting the flights ready on our side. I was wondering if you have an itinerary for our visit while we are down there too.

Sky

On Fri, May 18, 2018 at 1:16 PM, Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com> wrote:

Sky – looks like were a go on June 13/14 for you, Steve and Daniel.

From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Tuesday, May 15, 2018 2:57 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Cc: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>; Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>
Subject: Re: [EXTERNAL] Re: Kennecott site visit

Roger that,

On Tue, May 15, 2018 at 2:27 PM, Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com> wrote:

Sky – think we can make it work but running the traps to confirm. So please hold the dates – I will revert asap.

Best,

Ryan

From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Monday, May 14, 2018 1:33 PM
To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
Subject: Re: [EXTERNAL] Re: Kennecott site visit

Ryan,

We just got an e-mail from Steve.

He's a go for the 13th and 14th, if you can accommodate us.

Sky

DOI-18-0543-A-000102

--

V/R

C. Schuyler Anderson
Commodities Specialist
Tin, Selenium, Tellurium

(O) 703-648-4985

V/R

C Schuyler Ander on
Commoditie Speciali t
Tin, Selenium, Tellurium

(O) 703 648 4985

--

V/R

C. Schuyler Anderson
Commodities Specialist
Tin, Selenium, Tellurium

(O) 703-648-4985

--
V/R

C. Schuyler Anderson
Commodities Specialist
Tin, Selenium, Tellurium

(O) 703-648-4985

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V/R

C. Schuyler Anderson
Commodities Specialist
Tin, Selenium, Tellurium

(O) 703-648-4985

Brown, Josh (RTKC) <Josh.Brown@riotinto.com>
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>

Thu, May 31, 2018 at 9:57 AM

I will see what we can do and get back to you. Shouldn't be a problem.

Sincerely,

Josh Brown
801-231-2905

On May 31, 2018, at 6:19 AM, Anderson, Charles (Sky) <csanderson@usgs.gov> wrote:

Josh,

Could we get the respirator test scheduled for the afternoon of the 12th?

Sky

On Fri, May 25, 2018 at 2:39 PM, Brown, Josh (RTKC) <Josh.Brown@riotinto.com> wrote:

Sky,

As we prepare for lunch, wanted to check if you or team have any dietary restrictions or concerns. If so let us know. Thanks and have a great weekend.

Josh Brown
Director Government Affairs

<image003.jpg>

DOI-18-0543-A-000104

4700 Daybreak Parkway, South Jordan, Utah 84009

102 Magma Heights
Superior, AZ 85173, United States

T: +1 801.204.2192 M: +1 801.231.2905

Josh.Brown@riotinto.com

www.riotinto.com www.kennecott.com www.resolutioncopper.com

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From: Anderson, Charles (Sky) [mailto:csanderson@usgs.gov]
Sent: Thursday, May 24, 2018 1:44 PM
To: Brown, Josh (RTKC) <Josh.Brown@riotinto.com>

Subject: Re: [EXTERNAL] Re: Kennecott site visit

Steve: Shoes (b) (6) Shirt, (b) (6)

Danny: Shoes (b) (6), Shirt (b) (6)

Sky: Shoes (b) (6), Shirt, (b) (6)

And we would like to do the respirator training and testing out there.

Sky

On Wed, May 23, 2018 at 7:18 PM, Brown, Josh (RTKC) <Josh.Brown@riotinto.com> wrote:

Sky,

Also found out that North brand half face respirators are also available on site. If you get fit tested before, please let us know the size of respirator for each of you and we can have them ready before hand.

Josh Brown
Director Government Affairs
<<image004.jpg>>

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From: Brown, Josh (RTKC)

Sent: Wednesday, May 23, 2018 2:51 PM

To: Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>; Anderson, Charles (Sky) <csanderson@usgs.gov>

Cc: Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>; Rhodes, Piper (RTKC) <Piper.Rhodes@riotinto.com>; Forsyth, Bill (RTCP) <Bill.Forsyth@riotinto.com>

Subject: RE: [EXTERNAL] Re: Kennecott site visit

Sky,

Look forward to having you join us and getting to see Rio Tinto Kennecott first hand. I have spoken with our operational teams and they have some recommendations on ways to best streamline the pre-work and safety preparation.

As we will be at the Smelter and Refinery there are locations where personal half face respirators are required. To wear a respirator one needs to be tested and fitted for use. This includes a pulmonary test to assure one has the lung capacity to wear a respirator and a fit test to make sure the respirator fits appropriately and serves the purpose of preventing ambient atmosphere from entering the lungs. You can be tested at an occupational health facility or an industrial health facility in virtually all major cities or we can prepare appointments here in Salt Lake City once you arrive. Each test lasts roughly 15-25 minutes and cost range \$40-60 (I will verify here in Salt Lake). If you choose to undertake a test near your home/work we recommend having them test you on a 3M half face respirator. 3M is very common respirator and all should have this style/type. If you are able to be tested locally with a 3M half face respirator we will have loaners available for you to use at site. If you choose or have to be tested with another respirator type you will need to purchase a respirator and purchase dual cartridge for dust (purple in color) and yellow (chemical). They sell purple/yellow combo cartridges. They run roughly around \$40 for mask and canisters.

DOI-18-0543-A-000106

If you desire being tested while in Salt Lake City, we will set up an appointment for you to be tested and will escort you to facility. We will need the first and last names of all participating on the tour to set the appointment.

Process will be the same as discussed above.

Please let me know what your thoughts are regarding the respirator test

Secondly, if you can please send us the shoe sizes for each of you, we will prepare your PPE (personal protective equipment) for the tour?

Thanks and please contact me if you have any questions.

Josh Brown

Director Government Affairs

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3 attachments

RioTinto [image005 jpg](#)
2K

RioTinto [image004 jpg](#)
2K

RioTinto [image003 jpg](#)
2K

Brown, Josh (RTKC) <Josh.Brown@riotinto.com>
To: "Anderson, Charles (Sky)" <csanderson@usgs.gov>
Cc "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>, "Main, Joyce (RTCD)" <Joyce.Main@riotinto.com>

Thu, May 31, 2018 at 1:51 PM

Let me know where your guys are staying and I'll try and see if we can find a location near where you are staying.

Sincerely,

Josh Brown
801-231-2905

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Director Government Affairs

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DOI-18-0543-A-000108

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Director Government Affairs

<image004.jpg>

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<Piper.Rhodes@riotinto.com>; Forsyth, Bill (RTCP) <Bill.Forsyth@riotinto.com>

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Josh Brown

Director Government Affairs

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3 attachments

Rio Tinto  image005.jpg

2K

DOI-18-0543-A-000110

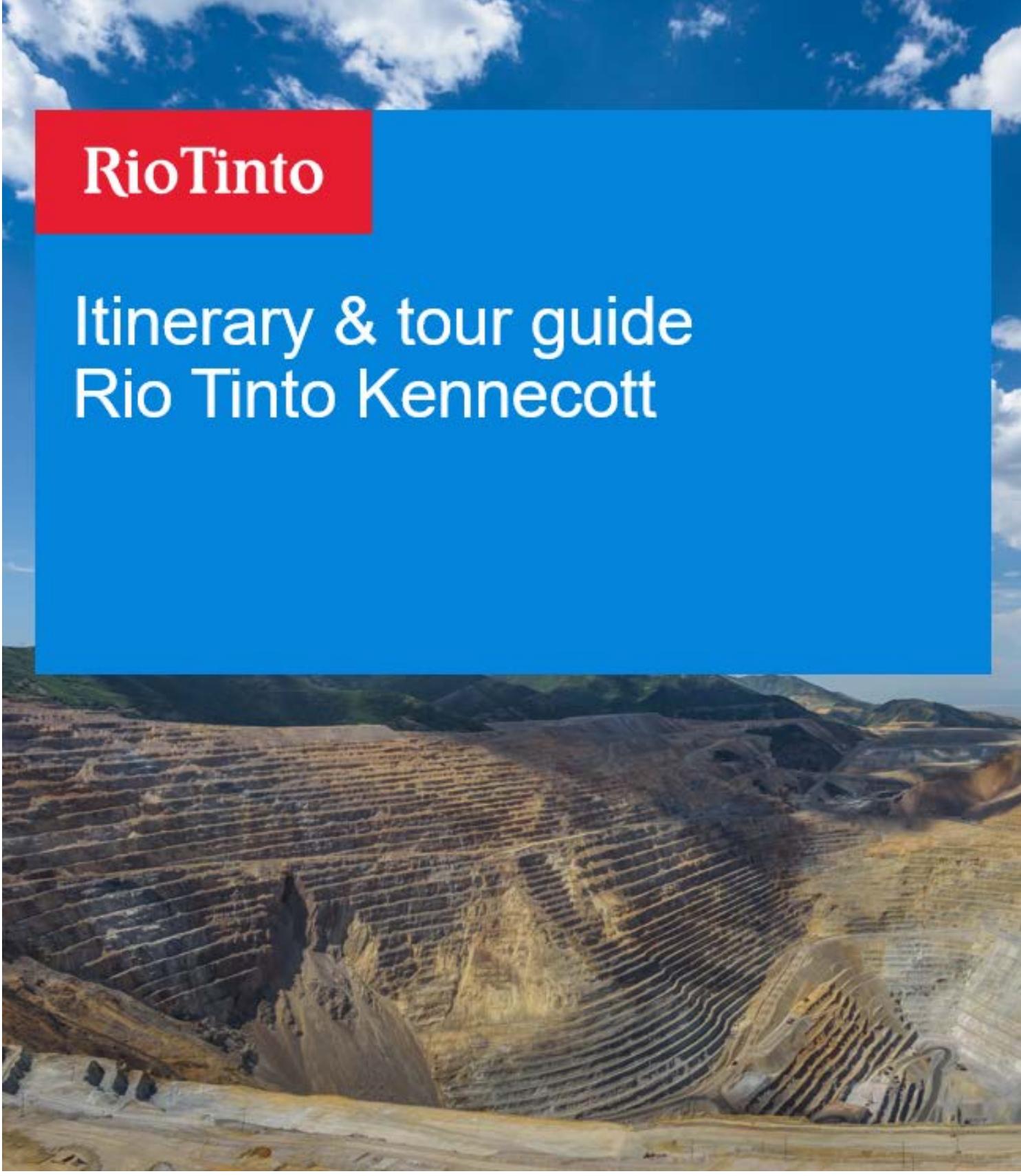
RioTinto image004.jpg
2K

RioTinto image003.jpg
2K

Ander on, Charle (Sky) c ander on@u g gov
To: "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>
Cc: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, Daniel Flanagan <dflanagan@usgs.gov>, Steven Fortier <sfortier@usgs.gov>, "Main, Joyce (RTCD)" <Joyce.Main@riotinto.com>

Thu, May 31, 2018 at 1 56 PM

Crystal Inn Hotel
2254 W City Center Court
West Valley City, UT, 84119



Rio Tinto

Itinerary & tour guide Rio Tinto Kennecott

***Please update all highlighted areas with requested tour specifics**

United States Geological Survey (USGS)

USGS Visitors: Charles "Sky" Anderson; Daniel Flanagan; Steve Fortier

Transportation: Ford Expedition is reserved

Tour guide: Bill Forsyth / Josh Brown

Date: June 13-14, 2018

Day 1 – Wednesday, May 30

Time	Activity
9:00 – 10:00am	Minerals Safety Training, PPE Distribution Location: RTRC 3S 3307 Mozambique Host: Bill Forsyth PPE: Joyce
10:00 – 12:00pm	Round Table Discussion with Rio Tinto Location : RTRC 3S 3307 Mozambique Host: Andrew Lye, Mark Tait
12:00 – 1:00pm	Lunch with Environmental Team Location: RTRC 3S 3307 Mozambique Host: Josh Brown
1:00 – 1:30pm	Depart for Bingham Canyon Mine Transportation: Ford Expedition Host: Josh Brown
1:30 – 3:00pm	Bingham Canyon Mine, Truck Shop, Geotech overview Transportation: Ford Expedition Host: Matt Tobey or delegate, escort vehicle required
3:00 – 3:30pm	Depart Bingham Canyon Mine for Concentrator Transportation: Ford Expedition Host: Josh Brown
3:30 – 4:30pm	Walking Tour of Concentrator Host: Mike Robinette
4:30 – 5:00pm	Depart Concentrator for Rocky Mountain Care Clinic Transportation: Ford Expedition Host: Josh Brown

DOI-18-0543-A-000113

5:00 – 6:00pm	Respiratory Fit Testing for Smelter Location: Rocky Mountain Care Clinic 4088 West 1820 South Host: Ryan Stanton
---------------	--

Day 2 Thursday, May 31

Time	Activity
8:30 – 9:00am	Hotel Pick up Transportation: Ford Expedition Host: Josh Brown
9:00 – 10:00am	Convene with Smelter Staff at Visitor Security Gate Complete Hydromet Safety Training, PPE Issued Location: Smelter Admin Building Host: Cindy Greer
10:00 – 11:30am	Walking Tour of Hydromet, Selenium, Rhenium, Anode Casting Host: Ryan Walton, Bill Forsyth
11:30 - 12:30pm	Working Lunch - Smelter Overview Location: Tracy to book room at Smelter Host: Ryan Walton
12:30 – 1:00pm	PPE Return Host: Bill Forsyth
1:00 – 1:15pm	Depart Smelter for Refinery Host: Bill Forsyth
1:15 – 2:30pm	Walking Tour of Refinery Host: TBD
2:30 – 3:00pm	Group to return to hotel Transportation: Ford Expedition Host: Josh Brown

Personal safety, security and dress code

At Rio Tinto, safety is both a value and priority at all of our businesses. We believe that all injuries are preventable and our aim is for all employees to go home safe and healthy at the end of each day. When visiting Rio Tinto operating sites, you will receive a safety induction upon arrival. You should follow the safety instructions you receive at all times while on site.

In the case of an emergency, use the following numbers at each plant:

Plant emergency contacts (DO NOT CALL 911)

Name	Phone
Mine	801 569 6211
Concentrator	801 569 6911
Smelter	801 569 6499
Refinery	801 569 6722
MAP	801 204 3311

Dress code

Please ensure you wear a long sleeve shirt, long trousers and weather appropriate outerwear. The following are not allowed on RTKC property:

- Firearms or weapons of any type
- Rings on fingers
- Facial rings
- Earrings other than small studs
- Ear gauges must be plugged with plugs
- To prevent possible entanglement, hair shall be secured
- Chains, necklaces and bracelets that are not contained within clothing
- Wrist watches must be covered by sleeves at all times
- Contacts – eyewear covered by protective glasses must be worn while in operating areas

If you are visiting the Smelter, please be aware that you will need to be fitted for a full face respirator before entering.

If you visit our operations from during the winter months, cleats will be provided to you and are required to be worn.

Please note:

- The following personal protective equipment will be provided to you during your site visit:
 - Hard hat
 - Safety glasses
 - High visibility vest
 - Gloves
 - Hearing protection
 - Safety boots

Rio Tinto Kennecott Copper Facts

Location

South Jordan, Utah

Ownership

Rio Tinto – 100 percent

RTKC Managing Director

Marc Cameron

Employees

1,752

Landholding

96,000 acres

Contact Information

4700 Daybreak Parkway

South Jordan, UT 84095

Phone: 801.204.2000

Website: www.riotintokennecott.com

Main Operations

- Bingham Canyon Mine
- Copperton Concentrator
- Garfield Smelter
- Kennecott Refinery
- Kennecott Tailings Impoundment
- Utah Power Plant

About Rio Tinto Kennecott Copper (RTKC)

RTKC is a fully integrated mining, smelting and refining operation located adjacent to Salt Lake City, Utah. RTKC owns and operates the Bingham Canyon Mine, providing important mineral resources and economic prosperity for more than 115 years. As pioneers in mining and metals we produce materials essential to human progress. Nearly everything people do today relies on materials that are mined — from minerals used daily in medicine, food, shampoo and soap, to metals used to conduct heat and electricity, as well as those used for CAT scans and in the space shuttle.

As the second largest copper producer in the United States, Kennecott provides about 13 percent of the nation's copper supply. The Bingham Canyon Mine is one of the largest manmade excavations on earth and is one of the top producing copper mines in the world with production at more than 20 million tons.

Rio Tinto purchased Kennecott in 1989 and has invested about \$2 billion in modernization projects. Kennecott has also spent more than \$500 million on groundwater and soils clean up.

2017 Production Statistics

- Copper – 138,670 tons
- Gold – 203,700 troy ounces
- Silver – 2,378,000 troy ounces
- Molybdenum – 10.9 million pounds
- Sulfuric acid – 830,871 tons



Fortier, Steven <sfortier@usgs.gov>

Re: Highlight on Committee on Earth Resources - Spring 2018

1 message

Michael Jarvis <mjarvis@usgs.gov>

Wed, Apr 18, 2018 at 4:34 PM

To: "Nassar, Nedal" <nnassar@usgs.gov>, Steven Fortier <sfortier@usgs.gov>, mmagyari@usgs.gov

Gents:

I'm thinking we go with this as a highlight next week and for this week submit the Wilburn paper for Mining Engineering. Let me know if you have any other suggestions or if this works for you.

Thanks

Mike

On Apr 18, 2018, at 1:54 PM, Nassar, Nedal <nnassar@usgs.gov> wrote:

FYI---Below is the announcement on the NAS meeting in May at which Tom Crafford and I will be presenting.

----- Forwarded message -----

From: Eide, Elizabeth <EEide@nas.edu>

Date: Wed, Apr 18, 2018 at 1:49 PM

Subject: [EXTERNAL] Committee on Earth Resources - Spring 2018

To: "Nassar, Nedal" <nnassar@usgs.gov>, "Orringer, Neal" <Neal.Orringer@3dsystems.com>, "jared.blecher@3DSystems.com" <jared.blecher@3dsystems.com>, Yucong Wang <yucong.wang@gm.com>, "Crafford, Thomas" <tcrufford@usgs.gov>, John Muntean <munteanj@unr.edu>, "Keith.Smith@materion.com" <Keith.Smith@materion.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Mengers, Joshua" <Joshua.Mengers@ee.doe.gov>, "Conrad, Regis" <regis.conrad@hq.doe.gov>, "Alvin, Maryanne" <Maryanne.Alvin@netl.doe.gov>, Roderick Eggert <reggert@mines.edu>, Lani Boldt (b) (6) <jslutz@gmail.com>, Michael Carroll <MCarroll@huntonoil.com>, "James Slutz (jslutz@npc.org)" <jslutz@npsc.org>

Cc: "Edkin, Eric" <EEdkin@nas.edu>

Dear all,

Thanks ever so much for the great conversations by phone this afternoon. I'm more keen than ever to start this meeting—I think it's going to be a superb day, driven by the interesting topics you each are going to share.

Below is the announcement for the meeting that you can feel free to share with colleagues.

Take contact with any questions!

All the best,
Elizabeth

The National
Academies of

SCIENCES
ENGINEERING
MEDICINE

EARTH SCIENCES AND RESOURCES

Event Announcement



*Opportunities, challenges, and needs for
U.S. manufacturing, economy, and security*

May 9, 2018 | Washington, DC

Keck Center, [500 5th Street NW](#)

[Room 201](#)

The **Committee on Earth Resources** will be holding their Spring 2018 meeting on May 9, 2018. The topic of discussion for this event is *Critical Minerals and Materials: Opportunities, challenges, and needs for U.S. manufacturing, economy, and security*.

The agenda for this event can be downloaded [here](#).



[Register to Attend](#)

[Download Agenda](#)***Committee Information*****MEMBERSHIP****STAFF****REPORTS****PAST EVENTS**

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United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Office of the Director
Reston, Virginia 20192

Chairman Terry Rambler
San Carlos Apache Tribe
San Carlos Avenue
P.O. Box 0
San Carlos, Arizona 85550

MAY 31 2016

Dear Chairman Rambler:

Thank you for your letter of April 25, 2016, requesting the U.S. Geological Survey (USGS) consider a role as a cooperating agency in the environmental review of the Resolution Copper Mining project in southeastern Arizona. We understand your concern about the potential adverse impacts of this project to the San Carlos Apache Tribe and welcome the opportunity to provide assistance. As I discussed with Mr. John Harte, Mapetsi Policy Group, via telephone on May 13, 2016, our mission as a provider of unbiased science prohibits us from participating as a cooperating agency. While we respectfully decline to be a cooperating agency, the USGS can provide science support when our data and scientific expertise have relevance to the proposed action. Such assistance can include attending and making presentations at scoping and technical meetings, reviewing documents, and conducting special studies and data collection projects.

The proposed Environmental Impact Statement has two major elements, the land exchange and the proposed mine. Although land exchange agreements are well beyond the scope of the USGS mission, the USGS has expertise and subject matter experts familiar with many of the issues identified by the U.S. Forest Service Tonto National Forest regarding the proposed mine. These issues include impacts to groundwater and surface water quality, riparian and aquatic areas and springs, ground subsidence, and biological resources, including threatened and endangered species.

To move forward, I have asked Mr. Robert Horton, USGS Southwest Science Coordinator, to contact you regarding potential USGS involvement in this matter. You or your staff may also reach Mr. Horton at 303-236-1338 or rhorton@usgs.gov.

Sincerely,

Suzette M. Kimball
Director

cc: Director's File – MS 114
Director's Chron – MS 114
AD for Environmental Health – MS 102
Southwest Regional Office – MS 911
Monique Fordham, USGS National Tribal Liaison

USGS:SWR:RHorton:seb:5/24/2016:303-236-1338:GS16000832



Nassar, Nedal <nnassar@usgs.gov>

(no subject)

1 message

Steven Fortier <sfortier@usgs.gov>

Thu, Jul 27, 2017 at 9:16 PM

To: Ryan Stanton <Ryan.Stanton@riotinto.com>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, Nedal Nassar <nnassar@usgs.gov>

Hi Ryan,

I think we are set for the meeting at 3 pm tomorrow in Reston. I will be on an airplane so Nedal Nassar will participate in my stead. His office phone is 703-648-7725. Just call when you arrive and he will come to collect you.

Regards, Steve

Sent from my iPhone



Nassar, Nedal <nnassar@usgs.gov>

[EXTERNAL] Committee on Earth Resources - Spring 2018

1 message

Eide, Elizabeth <EEide@nas.edu>

Wed, Apr 18, 2018 at 1:49 PM

To: "Nassar, Nedal" <nnassar@usgs.gov>, "Orringer, Neal" <Neal.Orringer@3dsystems.com>, "jared.blecher@3DSystems.com" <jared.blecher@3dsystems.com>, Yucong Wang <yucong.wang@gm.com>, "Crafford, Thomas" <tcrafford@usgs.gov>, John Muntean <munteanj@unr.edu>, "Keith.Smith@materion.com" <Keith.Smith@materion.com>, "Brown, Josh (RTKC)" <Josh.Brown@riotinto.com>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>, "Mengers, Joshua" <Joshua.Mengers@ee.doe.gov>, "Conrad, Regis" <regis.conrad@hq.doe.gov>, "Alvin, Maryanne" <Maryanne.Alvin@netl.doe.gov>, Roderick Eggert <reggert@mines.edu>, Lani Boldt <(b) (6) @gmail.com>, Michael Carroll <MCarroll@huntoil.com>, "James Slutz (jslutz@npc.org)" <jslutz@npc.org>
Cc: "Edkin, Eric" <EEEdkin@nas.edu>

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EARTH SCIENCES AND RESOURCES

Event Announcement



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Room 201

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PAST EVENTS DOI-18-0543-A-000125



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Nassar, Nedal <nnassar@usgs.gov>

[EXTERNAL] RE: SGA in Glasgow next year

1 message

Eley, Russell (G&I) <Russell.Eley@riotinto.com>

Tue, Sep 11, 2018 at 6:47 PM

To: Simon Jowitt <simon.jowitt@unlv.edu>

Cc: "Nassar, Nedal" <nnassar@usgs.gov>, Gavin Mudd <gavin.mudd@rmit.edu.au>

Thanks for the invite Simon, I've forwarded this to my boss to gauge interest in either myself or someone else from Rio presenting, and will let you know what they say.

Cheers,

Russ

Russ Eley

Generative Manager - Americas

Growth & Innovation

Rio Tinto

2640 West 1700 South, Salt lake City, UT, 84104, USA

+1 385 887 3467

russell.eley@riotinto.com <http://www.riotinto.com>



From: Simon Jowitt [mailto:simon.jowitt@unlv.edu]

Sent: Tuesday, September 11, 2018 4:02 PM

To: Eley, Russell (G&I) <Russell.Eley@riotinto.com>

Cc: Nassar, Nedal <nnassar@usgs.gov>; Gavin Mudd <gavin.mudd@rmit.edu.au>

Subject: SGA in Glasgow next year

Hi Russ

I've been asked to lead the Economics of Mineral Deposits theme at the SGA conference in Glasgow next year (August 27-30; <https://www.sga2019glasgow.com/>) and am working with Nedal Nassar and Gavin Mudd to pull this together. It will probably be the biggest economic geology conference next year and I was wondering whether you'd be willing to give a keynote. The session will aim to cover the following:

"The mining industry faces a number of critical challenges both now and in the future beyond those typically considered by geologists. In particular, this session will explore some of these challenges and focuses on the economics of ore deposits, including what makes a mineral deposit economic beyond grade and tonnage, the social and environmental challenges faced by future brownfield and greenfield mining, long term trends in resource use, production, and future trends in demands for metals and minerals, and estimates of global metal resources and the controls on the conversion of resources to reserves to production. We also invite submissions on research into what makes world-class deposits truly world class (i.e., not just size alone), the potential challenges of increasing by-product recovery from existing and future mineral resources, including opportunities for generating wealth from e.g. mine waste (especially tailings), as well as the human resources required by the minerals industry to meet these current and future challenges."

We thought you'd be able to give a good industry viewpoint on one or more of these topics, and this for example might be a platform to challenge some of the ideas that e.g. Richard Schodde and others are putting out there. I think the conference has funding to support travel etc for keynotes although obviously the key factor here for you would be permission from Rio Tinto. Let us know what you think.

Gavin and I are also going to send you a separate email on the exploration expenditure vs. resource growth paper/research we discussed.

Cheers

Simon

--

Dr. Simon Jowitt
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Vice-President, IAVCEI [Large Igneous Provinces Commission](#)

DOI-18-0543-A-000128



Nassar, Nedal <nnassar@usgs.gov>

[EXTERNAL] SGA in Glasgow next year

1 message

Simon Jowitt <simon.jowitt@unlv.edu>
To: "Eley, Russell (RTX)" <Russell.Eley@riotinto.com>
Cc: "Nassar, Nedal" <nnassar@usgs.gov>, Gavin Mudd <gavin.mudd@rmit.edu.au>

Tue, Sep 11, 2018 at 6:02 PM

Hi Russ

I've been asked to lead the Economics of Mineral Deposits theme at the SGA conference in Glasgow next year (August 27-30; <https://www.sga2019glasgow.com/>) and am working with Nedal Nassar and Gavin Mudd to pull this together. It will probably be the biggest economic geology conference next year and I was wondering whether you'd be willing to give a keynote. The session will aim to cover the following:

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Cheers

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Nassar, Nedal <nnassar@usgs.gov>

[EXTERNAL] VIP Invitation: CABC & MABC Reception June 18th

1 message

Dickerson, Blair (RTCMI) <Blair.Dickerson@riotinto.com>
To: "Lepsoe, Claire (RTCMI)" <Claire.Lepsoe@riotinto.com>

Wed, Jun 6, 2018 at 9:59 AM

In connection with Rio Tinto's patron sponsorship of Resources for Future Generations 2018, you are cordially invited to a reception hosted by the Canadian American Business Council and the Mining Association of BC. Please see attached invitation and kindly RSVP at cabc-mabc.eventbrite.ca (password: leadership).

Best regards/Cordialement

Blair Dickerson

Vice President, Canada

Rio Tinto
360 Albert Street. Suite 1020, Ottawa, Ontario K1R 7X7, Canada

T: + 1 613 569 3346 M: + 1 343 540 7934 F: + 1 613 569 6195

blair.dickerson@riotinto.com <http://www.riotinto.com>

 [VIP Invitation CABC & MABC Reception 18 June.pdf](#)
2322K



The Canadian American Business Council
together with
the Mining Association of BC
invite you to celebrate
Rio Tinto, the recipient of
CABC's Corporate Leadership Award

Monday 18 June 2018

The Vancouver Club

5:30pm – 7:00pm

The evening will include a conversation with
Rio Tinto's chief executive Aluminium Alf Barrios and
Canadian American Business Council's
chief executive officer Maryscott (Scotty) Greenwood

Cocktails and hors d'oeuvres at 5:30pm
Formal remarks and conversation at 6:00pm

Kindly RSVP by 11 June at
cabc-mabc.eventbrite.ca
password: leadership

RioTinto

DOI-18-0543-A-000131



Nassar, Nedal <nnassar@usgs.gov>

Re: Thanks

1 message

Nedal Nassar <nnassar@usgs.gov>
To: "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>

Thu, Mar 2, 2017 at 6:16 PM

Hi Ryan,

Thank you for the kind note and invitation. We always find it useful to speak with folks from industry and will look into taking you up on your generous offer to visit your operations.

Best regards,

Nedal

On Mar 2, 2017, at 11:05 AM, Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com> wrote:

Hi Nedal,

Just wanted to send a quick thank you for hosting us on Monday – we truly enjoyed it and look forward to working with you moving forward. If there is anything we can do for you, please let us know.

Finally – we would love to host you guys out to our Arizona and Utah ops this spring or summer – let me know how I can help!

Best,

Ryan

Ryan Stanton

Director - US Government Affairs & Communications

Rio Tinto
900 G Street NW, Suite 200
Washington, DC 20001

M: +1 202 247 6547 O: +1 202 383 4625
ryan.stanton@riotinto.com <http://www.riotinto.com>



Nassar, Nedal <nnassar@usgs.gov>

Re:

1 message

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>

Fri, Jul 28, 2017 at 6:21 AM

To: Steven Fortier <sfortier@usgs.gov>

Cc: Daniel McGroarty <dmcg@carmotsg.com>, Nedal Nassar <nnassar@usgs.gov>, "Malan, Todd (US Ext Affairs)" <Todd.Malan@riotinto.com>

Thanks, Steve.

Nedal - we look forward to seeing you later today.

Best. Ryan

Sent from my iPhone

> On Jul 27, 2017, at 9:16 PM, Steven Fortier <sfortier@usgs.gov> wrote:

>

> Hi Ryan,

>

> I think we are set for the meeting at 3 pm tomorrow in Reston. I will
> be on an airplane so Nedal Nassar will participate in my stead. His
> office phone is 703-648-7725. Just call when you arrive and he will
> come to collect you.

>

> Regards, Steve

>

> Sent from my iPhone

>



Nassar, Nedal <nnassar@usgs.gov>

Rio Tinto Follow-up

1 message

Malan, Todd (US Ext Affairs) <Todd.Malan@riotinto.com>

Wed, Aug 2, 2017 at 5:30 PM

To: "mhitzman@usgs.gov" <mhitzman@usgs.gov>

Cc: "nnassar@usgs.gov" <nnassar@usgs.gov>, "Stanton, Ryan (RTHQ)" <Ryan.Stanton@riotinto.com>, "Fortier, Steven (sfortier@usgs.gov)" <sfortier@usgs.gov>

Murray/Nedal/Steve: Many thanks for meeting with us last Friday. Great conversation and keen to work on the follow-up. We are talking to the US Forest Service in regard to getting a formal letter to Acting Director Werkheiser to request that the USGS join the interagency review process as a cooperating agency to contribute the full range of USGS perspective and expertise to the USFS review. As discussed, the USGS would be highly valued as a "contributor of special expertise," particularly in the mineral and geological areas. The Council on Environmental Quality (CEQ) definition for a cooperating agency under NEPA is "**any agency that has jurisdiction by law OR special expertise.**" Pretty clear you and your colleagues fit the special expertise threshold. We will touch base with Congressional and other Administration contacts who have expressed an interest in making sure that the review process has expert mineral and geological expertise at the table.

On the President's defense industrial base EO, let's stay close on how we can be helpful. I am following up with Alex Gray and will suggest that RT Kennecott would be a great backdrop.

Finally, wanted to make sure you had seen our CEO's oped from earlier this year regarding how US domestic mineral and metal resources can help with the President's push on manufacturing (and defense industrial base).

<http://www.foxbusiness.com/politics/2017/03/09/metals-and-mining-matter-trumps-infrastructure-and-manufacturing-push-depend-on-it-opinion.html>

Call if any other issues to discuss. Best, Todd

Todd M. Malan

Vice President, External Affairs & Communications - Americas

Rio Tinto

900 G Street NW, Suite 200

Washington, DC 20001

T: 202.383.4620 M: 202.714.8187 F: 202.393.0232

Todd.Malan@riotinto.com <http://www.riotinto.com>



Nassar, Nedal <nnassar@usgs.gov>

Thanks

1 message

Stanton, Ryan (RTHQ) <Ryan.Stanton@riotinto.com>
To: "nnassar@usgs.gov" <nnassar@usgs.gov>

Thu, Mar 2, 2017 at 1:04 PM

Hi Nedal,

Just wanted to send a quick thank you for hosting us on Monday – we truly enjoyed it and look forward to working with you moving forward. If there is anything we can do for you, please let us know.

Finally – we would love to host you guys out to our Arizona and Utah ops this spring or summer – let me know how I can help!

Best,

Ryan

Ryan Stanton
Director - US Government Affairs & Communications

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900 G Street NW, Suite 200
Washington, DC 20001

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ryan.stanton@riotinto.com <http://www.riotinto.com>

MRP Project Proposal (for FY19 Start)	
Project Title:	Feasibility of Extracting Byproduct Mineral Commodities from Porphyry Copper Tailings at an Active Mine – A Scoping Study
Project Leads:	Robert Seal and Steven Fortier
Project Duration:	1 year
Key words:	
<ul style="list-style-type: none"> • mill tailings, byproduct critical minerals, legacy mine waste, porphyry copper, Bingham Canyon 	
Introduction <ul style="list-style-type: none"> • It may be a significant challenge to meet future demand for byproduct critical minerals because they do not drive the economics of any given mine. Instead, they are derived as byproducts, or in some cases, coproducts from mines of other, primary commodities such as copper, zinc, or nickel, among others. Few options are available to increase future supplies of byproduct critical minerals such as tellurium, selenium, rhenium, and platinum group metals (PGMs). Potential additional sources include: implementing recovery at mining operations that currently do not recover these commodities; improving recovery efficiencies at existing operations; reprocessing existing mine waste, such as mill tailings or slag; or optimizing recycling efforts. The security of future supplies of these elements will likely require a combination of these strategies and should be assessed for their technical and economic viability. <p>The NMIC has developed working relationships with senior Rio Tinto government affairs, technical, operations, and environmental personnel over the past two years. Discussions are underway to gain access to data and reports from a drilling and testing campaign conducted on the mill tailings from the Bingham Canyon mining and processing operations. Bingham Canyon has been in operation for over 110 years and has reserves to date of at least 10 or 15 years' additional production. Porphyry copper deposits such as Bingham Canyon are important sources of byproduct critical minerals such as tellurium, selenium, rhenium, and PGMS globally, in addition to their coproducts molybdenum, gold, and silver. Thus, insights gained from investigations at Bingham Canyon should have far-reaching value beyond this single, major deposit in Utah. Bingham Canyon ranks among the largest porphyry copper deposits in the world. This fact and its long history of operation make the resource potential of reprocessing legacy tailings significant at this site.</p> <p>Preliminary reconnaissance investigations have identified anomalous concentrations of a variety of byproduct critical minerals in mill tailings from a variety of mineral deposit types (Seal and Piatak, 2017). The viability of recovering byproduct commodities from legacy tailings will require not only knowledge of the bulk concentrations of these elements in the tailings, but also detailed understanding of their mineralogical hosts. The ability to separate minerals using techniques such as froth flotation or dissolution is mineral-specific. It is anticipated that a wide array of advanced mineralogical characterization tools will be needed to ultimately achieve our scientific goals in a three- to five-year follow-up project. Although anomalous concentrations of many byproduct critical minerals have been found in a variety of mill tailings, it is unclear if recovery of these elements is economically feasible on their own merits, or if recovery can offset environmental management costs, including mine closure. This project offers the opportunity to evaluate some of these factors.</p>	

A non-disclosure agreement (NDA) will be required to interact further with respect to examining Rio Tinto's data sets on tailings chemistry and other attributes. NMIC (Fortier) has already initiated the internal process for reviewing a NDA from Rio Tinto. The objectives of a longer term, follow-up project will require detailed negotiation with Rio Tinto. It is anticipated that we will focus on understanding the concentration and distribution of byproduct commodities within the tailings storage facility; their mineralogical hosts; physical, chemical, or mineralogical alterations to those hosts that may affect their surface properties or dissolution kinetics that could ultimately influence recovery efficiencies; and their behavior in common leaching solutions such as sulfuric acid. Any effort to investigate the details of metallurgical processing of mill tailings will require close collaboration with metallurgists at Rio Tinto, a university, or other metallurgical research laboratory.

Objectives and Work Plan

- The primary objectives of this one-year scoping project are two-fold. First and foremost, we need to put in place the necessary agreements with Rio Tinto for working cooperatively at Bingham Canyon. Secondly, if such agreements are established, we plan to analyze the existing data and reports from Rio Tinto on the composition of the mill tailings pile. We also hope to begin collecting preliminary samples and identifying prospective lab techniques. For this project to be successful it is imperative that we establish agreements with Rio Tinto enabling us to conduct investigations at Bingham Canyon that are consistent with the scientific mission of the USGS as an unbiased, objective, scientific earth science agency for the Nation. Key aspects of these agreements will include transparency in the scientific process and the ability to disseminate scientific results in a timely fashion in appropriate venues (conferences, journals, USGS reports). Cost-sharing also will be explored. If an acceptable agreement with Rio Tinto proves to be unachievable, no follow-up proposal will be offered.
- Ideally, three activities will occur in the scoping year of this project:
 1. Meetings with Rio Tinto to establish multi-year agreements to allow the proposed research to occur. The meetings will likely include travel to their offices to meet with them and conduct site visits. However, efforts will be made to minimize travel costs through conference calls, video conferences, and meetings at common venues such as SME or PDAC conferences.
 2. If an agreement appears to be imminent, preliminary samples will be collected to begin the process of identifying which laboratory techniques will likely be most useful for this study. The array of techniques will span standard and advanced mineralogical characterization techniques. These will include, but not be limited to optical microscopy, X-ray diffraction, scanning electron microscopy, electron probe microanalysis, mineral liberation analysis, laser-ablation inductively-coupled mass spectrometry, sequential extraction and other leaching techniques, Raman spectroscopy, and synchrotron-based microanalytical techniques, among others. For those techniques for which the USGS lacks capability, access at other laboratories will be explored. Preliminary results may be presented at conferences if the results are scientifically mature.
 3. A multi-year (3- to 5-year) proposal will be written for an FY20 start.
- Should a successful agreement with Rio Tinto be forthcoming, the FY20 multi-year project proposal will have an expanded staff that may include a variety of analytical chemists and relevant commodity and materials-flow specialists.

Geographic location and tribal impacts																																		
<ul style="list-style-type: none"> • All samples will be collected from mine properties owned and controlled by Rio Tinto in Utah. • The research will have no impact on tribes or tribal lands. 																																		
Planned Products																																		
<ul style="list-style-type: none"> • The primary planned product is a multi-year agreement with Rio Tinto. • A proposal for a multi-year project beginning in FY20. • One or more abstracts for conferences may result if an agreement is reached early in FY19. 																																		
References Cited																																		
Seal, R.R., II, and Piatak, N.M., 2017, Environmental attributes and resource potential of mill tailings from diverse mineral deposit types: Wolkersdorfer, Christian; Sartz, Lotta; Sillanpää, Mikka & Häkkinen, Antti (eds), Proceedings – International Mine Water Association Meeting, Lappernranta, Finland, June 2017, 6 p.																																		
Project Timeline																																		
<ul style="list-style-type: none"> • Show duration of specific activities (milestones, and product completions by FY quarter (Q1, Q2, etc.). Use shaded cells for duration and Xs for specific times as shown in examples below. 																																		
		FY19				FY20				FY21				FY22				FY23																
Activity, milestone, or product		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4													
<i>Negotiations with Rio Tinto</i>																																		
<i>Reconnaissance sample collection</i>																																		
<i>Evaluation of analytical techniques and preliminary analyses</i>																																		
<i>Proposal writing</i>																																		
Budget and Staffing																																		
<ul style="list-style-type: none"> • Provide proposed annual net salary (use avg. of \$130K/FTE if estimating) and OE. Itemize OE into (1) Field and office support, (2) Analytical costs, (3) Large data acquisition costs, (4) Non-field-related travel/conference attendance, (5) Publication costs. Specify if costs will vary significantly in specific years. • Provide names of proposed project members, project role/assignment, and requested PPs 																																		
		Year 1				Year 2				Year 3				Year 4				Year 5																
Total FTE:		\$0.6																																
Annual net salary:		\$80,000				\$				\$				\$				\$																
Annual net OE:																																		

Field and office support:	\$6,000	\$	\$	\$	\$
Analytical costs:	\$5,000	\$	\$	\$	\$
Large data acquisition costs:	\$0	\$	\$	\$	\$
Non-field-related travel/conferences:	\$8,000	\$	\$	\$	\$
Publication costs:	\$0	\$	\$	\$	\$
Total annual net OE:	\$19,000	\$	\$	\$	\$
Annual total net budget:	\$99,000	\$	\$	\$	\$

Project Staff

Name	Project Role	PP
Robert Seal	Project Chief	4
Steven Fortier	Associate Project Chief	0
Nadine Piatak	Mineralogist/geochemist	3
Sarah Hayes	Mineralogist/geochemist	2
Sarah Jane White	Mineralogist/geochemist	2
Carlin Green	Mineralogist and lab support	2
Darryl Hoppe	Lab and logistical support	2